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DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR.


## SEPTEMBER.

"Farewell the pomp of Flora! vivid scene!
Welcome sage *Autumn*, to invite the year—
Farewell to summer's eye-delighted green!
Her verdure fades—autumnal blasts are near.
The silky wardrobe now is laid aside,
With all the rich regalia of her pride."

ENGLISH writers usually speak of SEPTEMBER as the "Ingathering Month," and that term is given it by some of the pleasantest writers on the Seasons. Why such a term should be especially applied to this month, is not very clear. The great harvest of breadstuff in England is wheat, and that, certainly, is not secured in *September*, but in July and August. Long before this month comes, the grass crop has been saved, and little is left, beside fruit, to be harvested. In the English "Year Book," 'tis said that "September is the month of *in-gathering*, when the produce of the year is ware-housed for our subsistence while nature reposes during winter, and is awakened in the spring, and while she is doing the summer business, until, in the ensuing autumn, she offers to our use the provision for another year."

The accomplished author of the "*Mirror of the Months*," says, now "the year is on the wane. It is declining into the vale of months. It has reached a certain age. It has reached the summit of the hills, and is not only looking, but descending into the valley below. But, unlike that into which the life of man declines, *this* is not a vale of tears; still less does it, like that, lead to that inevitable bourne, the kingdom of the grave. For though it may be called 'the valley of the *shadow* of death,' yet of death itself it knows nothing. No—the year steps onward towards its temporary decay, if not so rejoicingly, even more majestically, and gracefully, than it does towards its revivification. And if September is not so bright with promise, and so buoyant with hope as May, it is even more embued with that spirit of serene repose, in which the only true, because the only continuous enjoyment consists. Spring never *is*, but always *to be* blest; but September is the month of consummations—the fulfillment of all promises, the fruition of all hopes, the era of all completeness."

In this extract, the reader will perceive that the idea with which we started is dwelt upon with emphasis. In England, we cannot see it to be true, —but here it would be more applicable. Our grass and grain crops are gathered before *September*, but some of our principal harvests do not take place until late in this month, and through much of the month of October. The glory of our New England crops—the *Indian corn*—is rarely gathered until October, and so of the variety of roots, which now make up an item of great value in our winter stores of feed for cattle.

It is often remarked, that our seasons have changed,—that the spring is later and that the fine autumnal weather continues longer than heretofore. These remarks are, probably, mere impressions, and not declarations based upon any reliable data. An examination of tables recording the time of the flowering of apple trees for some fifty years past, satisfies us that the condition of the atmosphere has had no sensible change during that period; the time of flowering has been remarkably alike, and so it has of planting the usual crops. Unless a record is kept from day to day, most persons can remember very little of the state of the weather, even from one month to another—much less from one year to another. Some isolated cases will be strongly impressed, because combined with other remarkable circumstances, and these few cases will form the basis of a general opinion.

Every month has its own peculiar character, and

indispensable work to do. The omission of the influences of one, might be fatal to the work of all. If the perfecting and ripening suns of *August* are withheld from the grape, for instance, all the genial suns and refreshing rains of September will fail to perfect that fruit. No! There can be no transfer in Nature of this kind. Each week and month must stamp its own impression upon all vegetable life, or it is imperfect and unprofitable to man.

We know not whether any change has taken place in the autumnal season, but certain it is that, for many years, we have had hot, and even sultry weather in *September*, so that the heat has been oppressive as in July or August. A few cool nights, and usually a frost, slight or severe, in the opening of the month, have been felt, and then succeeded by glaring days and even sultry nights, through most of this month. These are succeeded by the glorious October days of the *Indian Summer* before winter sets in.

### Business of the Month.

Now that so much of the work of the farm is done by machinery, we trust that *September* will not pass away without one field, at least, being prepared for the mowing machine and horse-rake. There are many rough pieces that may be fitted for these machines with much less cost than is supposed. Let the large rocks that rise a foot or two above the surface remain as they are, while those of a moderate size should be dug about and sunk eight or ten inches below the surface, if the digging is not too difficult. At any rate, get them so that the mower will slide over them.

It is sometimes said that the farmer *cannot afford* to do this. On the other hand, does it not delay his work materially, to turn out from his straight line fifty times a day in ploughing, and leave about each stone an ugly balk to be dug up with the bog hoe, or grow up to grass and weeds, to vex him all summer? Is there a season passes without breaking the small plough, or the cultivator, while tending the crops, or of throwing the horse and implement, too, out of the row and breaking down many plants thereby? We have known a farmer to break a valuable machine three summers in succession, on the same fields, in going over the stones. Now, however, that field presents no obstacles. The less turning out of the true course there is, in doing our work, the less delay and breaking of tools or straining of team, the cheaper and better the work will be done. And this is true economy. There are stones in many a field now, over which teams have been thrashed and ploughs, and harrows, and cultivators have been broken for more than fifty years—to say nothing of the bruised shins of the owner, and the curses, perhaps, which accompanied the gouging out a junk of skin, or the blow which made all "look blue again."

Count the cost of all these, brother, and before *September* is gone decide whether it will not be profitable to get some of the obstructions out of the way. When the smaller rocks are removed a suggestion or two on drilling, and blasting, and removing the larger ones, may be of service. Other important work demands attention this month, but if *this item* is attended to it will be a comfort to you next "Haying Time."

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COTTON IN UTAH.—In the extreme Southern part of this Territory—some three hundred and sixty miles south of Salt Lake City,—small patches of cotton were cultivated the past season,—perhaps two hundred acres in all, producing an average of three hundred and seventy-five pounds to the acre. It is expected that much more will be grown this year, as four gins, and other appliances for saving and preparing the cotton, arrived there from the East last fall.

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### BRIEF HISTORY OF THE PATENT OFFICE.

The first Patent law was approved April 10, 1790. Applications were to be made to the Secretary of State, Secretary of War, and Attorney General. All persons without reference to nationality could make the application, the fees being $3.70 with the addition of ten cents per folio for the specification. On the 21st of February, 1793, this law was repealed, by the passage of another much more full, by which the fee was raised to $30, and the benefit of it was confined exclusively to citizens of the United States. The application was to be to the Secretary of State; the patent to be examined or revised by the Attorney General, and bear test by the President. By the act of April 17, 1800, the privilege was extended to aliens of two years' residence in the United States, and the act of July 13, 1832, only required the alien to be a resident at the time of his application. On the 4th of July, 1836, an act was passed providing for the appointment of a Commissioner, Chief Clerk, one examining clerk, and three other clerks, one of whom was to be a competent draughtsman, and a messenger. That was the origin of the present Patent Office Bureau. At that time it occupied a portion of the General Post Office building, and when that was destroyed by fire December 15, 1836, all the models, records, &c., of the Patent Office, were also consumed. By act of March 3, 1837, Congress provided for recording anew such of the patents destroyed, and assignments thereof, as could be obtained, and the officers were directed to obtain duplicates of the most important models burned, provided the amount thus expended did not exceed $100,000. Several amendments have been made to the Patent laws from time to time since, enlarging the powers of the Commissioner, and increasing the force employed, to meet the wants of the growing business of the office until now over twenty persons are employed, even in these war times, as examiners alone. A large number

of clerks are also employed for other purposes, such as copying, recording, taking care of the drawings, models, &c., while a large number of females are also kept busy copying the specifications after the applications have been examined.

The act of 1861 increased the salary of the Commissioner one-half—from $3,000 to $4,500, and also added $500 to the salary of the Chief Clerk, and $300 to the Librarian's. By that act, the examiners are made independent judicial officers, instead of being, as heretofore, mere assistants to the Commissioner. They now make their decisions upon their own responsibility; and such decisions cannot be controlled by the Commissioner, until they come before him by the regular process of appeal, provided by law.

The act of 1861 also created an Appeal Board, composed of three members, at a salary of $3000 per annum each, with a clerk at a salary of $1000. All appeals from the decisions of the Examiners must be to this Board, who have the power of affirming or reversing the decision.—*Prairie Farmer.*

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*For the New England Farmer.*

## METEOROLOGICAL RECORD FOR JULY.

These observations are taken for and under the direction of the Smithsonian Institution.

The average temperature of July was 71°; average midday temperature 76°. The corresponding figures for July, 1862, were 67° and 75° (showing much warmer nights this year than last.) Warmest day, the 7th, averaging 71°; coldest day, the 13th, averaging 62°. Highest temperature, 88°; lowest do., 58°.

Average height of mercury in the barometer, 29.25 inches; do. for July, 1862, 29.19 inches. Highest daily average, 29.42 inches; lowest do., 29.01 inches. Range of mercury from 28.96 inches to 29.43 inches. Rain fell on eighteen days; amount of rain, 6.56 inches; do. July, 1862, fourteen rainy days and 3.89 inches of rain; do. July, 1861, eight days and 2.76 inches; do. July, 1860, twelve days and 5.04 inches. There were no perfectly clear days; on seven days the sky was entirely overcast.

It will be noticed that the barometrical changes have been very slight—neither rising high nor falling very low. The amount of rain and the number of wet days are remarkable.

The table given above must change the reputation of July as to its being a month given to droughts—having been for the last four years, at least, very well watered. A. C.

*Claremont, N. H., Aug. 4, 1863.*

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A Cheerful Spirit.—Cheerfulness fills the soul with harmony; it composes music for churches and hearts; it makes glorification of God; it produces thankfulness and serves the end of charity; and, when the oil of gladness runs over, it makes bright and tall emissions of light and holy fires, reaching up to a cloud, and making joy round about. Therefore, since it is innocent, and may be so pious and full of holy advantage, whatsoever can innocently minister to this holy joy does set forward the work of religion and charity. And, indeed, charity itself, which is the vertical top of all religion, is nothing else but a union of joys concentrated in the heart, and reflected from all the angles of our life and intercourse. It is a rejoicing in God, a gladness in our neighbor's good, a pleasure in doing good, a rejoicing with him; and without love we cannot have any joy at all.

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Pickling Cucumbers.—As a general thing, sufficient care is not taken in pickling cucumbers, and large numbers of them "spoil" in less than three months' time. The following method we think the best: Select a sufficient quantity of the size you prefer, which probably cannot be done at one time. Put them in a stone pot, and pour over them a strong brine; to this add a small bit of alum, to secure the color. Let them stand a week; then exchange the brine for clear water, in which they must remain two or three days. Boil the best cider vinegar, and when nearly cool, pour it over the cucumbers, having previously turned off the water. Prepared in this manner, with the addition of cloves, allspice, mustard, and cinnamon, boiled in the vinegar, pickles of every kind will keep for a year. In pickling cauliflower, tomatoes, and other vegetables, which easily absorb the vinegar, the spiced vinegar should be added when cold.—*Rural New-Yorker.*

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What a Woman Can Do.—J. B. Bardwell, Worcester Co., Mass., writes to the *Agriculturist* that an unmarried woman of that place, now over 80 years old, a few years since bought a farm for $5,300, and recently added to it a pasture lot costing $500 more. She had accumulated the whole by doing housework at $1,50 per week, and putting her savings at interest. She formerly let the farm to tenants, but not liking their doings, last year she assumed the management, and with the help of one man carried on the business. She kept sixteen cows, attended personally to the dairy, and attended her own housework, besides doing the marketing, etc. A large class of young men who are idly "waiting for something to turn up," should take lessons from this old lady.—*Agriculturist.*

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Extensive Drainage.—The *Prairie Farmer* says that those who are acquainted with the land about Gilman Station, at the crossing of the Peoria and Oquawka and Illinois Central Railroads, know that there is a large tract (several townships) which is annually overflowed and rendered almost worthless for agricultural purposes. Recent surveys by the Illinois Central Railroad Company have shown that it can readily be drained, but at a large expense, which they have decided to assume. The plan involves nearly fifty miles of drains of various sizes, and will cost about $50,000. Upon the results of this will depend the drainage of other tracts in the State that need reclaiming.

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Tea Culture in California.—An effort is making in California to test the cultivation of tea. Mr. H. A. Sonntag, at the Mission, a short distance from San Francisco, has one thousand thrifty looking plants of this year's growth, from seed procured by a gentleman in China. The climate of California is about the same as that of the best tea-growing sections of China. As tea plants must be four years old before the leaves are suitable for picking, some time must elapse before the success of the experiment of growing tea in California can be determined.

## THE CAUSE OF THE POTATO ROT.

In 1851, the *Legislature of Massachusetts* passed a resolve, offering "a reward of ten thousand dollars to any person, within the Commonwealth, who shall satisfy the Governor and Council that, by a test of at least five successive years, he has discovered a sure and practical remedy for the potato rot."

Communications from the claimants of the premiums, and from others, at once poured in upon the executive; and the next year, 1852, Amasa Walker, then Secretary of the Commonwealth, prepared and published under the authority of the legislature, "A synopsis of the several communications on the cause and cure of the Potato Rot, received by the executive of Massachusetts," which was printed in connection with the usual volume of "Agricultural Transactions," and occupied fifty pages.

After the organization of the present Board of Agriculture, the whole subject of the ten-thousand-dollar premium was referred to that body, who proceeded to an experimental test, on the State farm, at Westborough, of the various remedies recommended by the claimants of the premiums, as their "sure and practical remedy for the potato rot."

A committee of three members of the Board was appointed to conduct these experiments. In a subsequent report, this committee say that, on entering upon the discharge of their duties, "We had hoped that an examination of the papers in the State department, communicated by the various claimants of the bounty of the State, would furnish us with such records of facts as would enable us to form some well digested plan of action in our investigation. But we were doomed in this expectation to be grievously disappointed, and we are constrained to say that we do not believe a more degrading record of ignorance of the first principles of natural science can be found than those papers, as a whole, manifest; although we should cheerfully except from this condemnation a few which seem to have been written with something of the modesty which always characterizes the cultivated writer."

These "papers" which so "grievously disappointed" our committee, were contributed by over one hundred individuals, about one-half of whom were residents of Massachusetts, and the other half of various other States and of the Canadas, and embodied unquestionably pretty much all that was known about the disease by the scientific and by the practical men of the land, together with a large amount of speculation and theory.

With this result of the ten-thousand-dollar offer, the public, as well as the committee, were "grievously disappointed." Great things had been anticipated from the tempting prize, but only a "degrading record of ignorance" was realized. The editors and readers of agricultural journals tired of the subject. We recollect that one of our own correspondents commenced an article on the "Potato Disease" with the declaration that, "For several years past, I have made it an almost invariable rule to omit the reading of any article in your paper, if its heading indicated that it treated of the potato disease, more especially if it professed to expound the cause of the disease, and to prescribe a remedy."

For several years past, therefore, we have not deemed it advisable to encourage the discussion of the subject in our columns, although we have gladly published every new fact or suggestion that has been communicated, or which we have noticed in other journals.

We alluded a week or two since to the endorsement by Prof. Johnson of Yale College, of the conclusions to which the German physiologists have arrived after very careful and long continued investigations, as to the cause of the potato disease. On this point the Professor speaks thus confidentially:

"At last the genuine cause has appeared, and what is it? Why, *the fungus!* But we gave that up long ago! Well, we must take it up again; it is the true cause! Beyond all reasonable doubt, it is proved that the potato never rots without the fungus, and that it always rots with it. Planting the fungus on a sound potato develops the disease. Shielding the potato from the fungus prevents the disease. The rot starts where the fungus begins to grow. Each microscopic cell of the tuber becomes discolored and rotten, when, and only when, the fungus issues its branches into it, or into its immediate neighborhood. Constitution, tuber, propagation, aphides, salt, manures and bad weather have nothing to do with the disease, except as they favor or destroy the fungus."

In this connection, it is interesting to look back upon the labors of the committee of our Board of Agriculture, already alluded to, and composed of JOHN C. BARTLETT, JABEZ FISHER and NATHAN DURFEE. In their report, Agriculture of Massachusetts, 1858, they say, "In every period of the disease, except the first, various fungi are to be seen beautifully ramified through the diseased portion of the tuber; but although subjected to a Spencer microscope, magnifying from three to seven hundred diameters, not the slightest indications of insect life or ravages were visible." In concluding their report, the committee add:

"It may be suggested by some persons that the fungi which exhibited themselves in the diseased matter of the potato might have been after all the exciting cause of diseased action; but we think the fact that the first stage of the disease, upon a most careful examination, manifested not the slightest trace of any fungus, is amply sufficient to warrant the conclusion that the sporules which by some yet hidden law exist in every conceivable position, vegetate whenever the decaying matter of

the nidus, in which they are deposited, affords the requisite nutriment for the fungus."

Although Prof. Johnson devotes a pretty long article to the subject of *cure* and *prevention*, we do not see as anything new or hopeful is suggested, further than that by "precautions based on the fungus theory, we may hope to raise fair crops of fairly sound potatoes."

### PLEURODYNIA, OR FOUNDER.

To illustrate the proper treatment of a horse that is badly used up by over exertion, Dr. Dadd gives the following details of his treatment of an animal which had been so shamefully abused by an inconsiderate or cruel driver that, on his return to the stable, he could scarcely stand, but received proper attention and care during the night. The next morning his feet were found to be more affected than other parts of the body, and it was impossible to get him to move. On being called, the treatment recommended by Dr. Dadd is thus described by himself:

I had his feet bathed, constantly, with cold water, and his joints, back and sides, were rubbed with a liniment, composed of equal parts of cod-liver oil and spirits of camphor. The medicine administered was one ounce of powdered nitre, night and morning, for three days; the pulse had decreased to thirty-six per minute, and the respirations were more tranquil; so I discontinued the nitre, and commenced an alterative plan of treatment by giving one ounce of fluid extract of Stillingia, night and morning, at the same time continuing the local applications, until they were no longer needed. One ounce of fluid extract of Buchu was occasionally given, in view of exciting the kidneys to action, and this is all the medicine the patient got, until convalesence was established, when he was put under tonic treatment; the tonic used was one ounce and a half of fluid extract of golden seal.

The treatment occupied a period of two weeks, during which time the animal stood but little on his limbs, seldom rising except to partake of food, which consisted of bran and water, a few oats and small quantities of hay.

So soon as the patient had regained some strength, he was led to pasture where he is now doing well. It appears that in the treatment of a disease of this character, light diet, a few simple medicines and good nursing, are all that are indicated.

HILLING UP POTATOES.—A correspondent of the *Genesee Farmer* gives the result of two experiments in hilling potatoes. In one case, a large flat hill was made, and the potatoes all rotted. In the other, the hills were made of a sharp conical form, that would shed water, and the potatoes were all sound.

COAL.—A tabular statement of the amount of Pennsylvania anthracite coal transported over the Reading Railroad during the year ending June 11th, compared with the number of tons shipped up to the same date in 1862, is published in the N. Y. *Herald*, and shows that the excess this year over the last is 586,663 tons.

*For the New England Farmer.*

### NON-PRODUCERS.

MESSRS. EDITORS:—I have often heard it remarked by a class of public nuisances, that the "world owed them a living." What evidence those non-producers of good, in any form, can show as evidence that the world is indebted to them, is beyond my comprehension. There is a variety of non-producers, as well as of those who are public benefactors; the non-producers of good are generally productive of evil. There might be a long category of non-producers named, of different grades of depravity, which in a time of peace might be dispensed with to advantage. This fraternity, to make out a world, consists of demagogues, gamblers, swindlers, thieves, pick-pockets, idlers, and an unfortunate class whose parents (considering their "geese all swans") unfit their sons for laborious employments by a long course of schooling, and after all have not talents to satisfy a fault-finding public, and prove a failure; such ones are more objects of pity than contempt. The class of non-producers of good is an incubus and an aggravation to the industrious part of the community, and what the wars do not absorb must be dealt with on Christian principles; a living they must have, (those that escape the gallows,) whether the world owes it to them or not.

The industrious merchant selects and furnishes us with all kinds of goods, if he does not produce them. The good judge furnishes us with justice, the clergyman with the knowledge of righteousness and the way to heaven, and the physician with the means to restore health, the mechanic with every conceivable implement to facilitate labor and every other useful purpose. But the farmer is the king producer; he, above all others, sustains the whole, from the root to all the branches, of every other occupation. If the farmer is the proprietor of the subsoil, as well as the surface of his farm, then all the minerals and vegetable productions are equally his own to dispose of. He can furnish materials to construct and replenish one of our most magnificent steamships of war, or to build a palace and supply it with luxuries. Now, what is that interesting class of non-producers about? Why some of them are gambling away the money which was left them by their industrious parents, some pious aunt or old bachelor uncle. Another *deserving* class comes under the head of "swans," whose parents consider their offspring of a finer texture, and having a horror at defiling their delicate kid-gloved hands, grow up ignorant of any trade or occupation that would, by industry, afford them a living; this class lives by their "wits;" they are guilty of all manner of swindling and meanness to be able to imitate style, and are upon the lookout for prey on the one hand, and on the other to see if there are any constables or police officers in pursuit. That unfortunate class, the descendants of low, ignorant, degraded parentage, are deserving of more respect and sympathy than either of the others, as, in some measure, sinning ignorantly; as necessity knows no law, they commit depredations like sheep-stealing dogs or beasts of the wilderness. The deplorable war which is now raging in our country, is one of the sad effects of the non-producing chivalry of the South. Idleness creates want, and want is the parent of envy, and

envy, when indulged, leads to death.

The old adage, that "Idleness is the mother of vice," is a very just one. Men, claiming to be rational creatures, who spend their time at the *highly civilized and chivalric* sports of horse-racing, cock-fighting, duelling and gambling, at whiskey taverns, if they are non-producers of corn and mutton, they are producers of social evils which are a curse to the nation. Where one-third of the population are slaves, and the other two-thirds of the population dependent upon the labor of the one-third, all the sophistry in the world will not convince me that both parties can be supported by the carelessly-applied labor of ignorant slaves, and not run behindhand. The gradual deficiency of the income to balance expenses or outgoes, from year to year, of Southern farming, has grown to such an oppressive degree that desperation seized the minds of the slaveholding farmers, and by one desperate effort they determined to win or lose, have the whole Union or nothing; and, of course, this horrid war which is raging in our country, is the offspring of the policy of slaveholding desperadoes. We can see by this picture, an illustration of the difference between production and non-production; while the South is scantily supplied with the necessaries of life, and they at a famine price, the Northern producers are bountifully supplied with the good things of the land, and have some to spare to our foreign friends across the water, and we hope will steer clear of the stigma of repudiating their debts.

*North Wilmington*, 1863. SILAS BROWN.

## EXTRACTS AND REPLIES.

### THE SEASON AND CROPS.

The mowing machine is in the field, but it fails to find the support that was anticipated. The thin clouds and slow coming rain have left the fields of grass with feeble support, and the harvest will be light. Corn looks well and grows finely; but even corn will not continue to grow without the occasional shower. Fruit is scarce, especially the most valuable of our fruits, the apple. The blow was moderate, and the vermin have been abundant; especially the canker worm—that pest of orchards. As a whole, the promise of the harvest of the field is not encouraging. Praise be to God, the rumors from the war *are* encouraging. May they continue to increase until every rebel has found his just reward. ESSEX.

*July* 6, 1863.

REMARKS.—Since our correspondent wrote, the earth has been watered and is made glad again. Enough has now fallen to carry out the small grains and carry the Indian corn and potatoes well into August. Some of the later grass fields will also find timely relief, and bring a usual crop.

We had heavy rains last year on the the 14th, 15th and 16th of July.

### A LITTLE INCIDENT, A BIT CURIOUS.

I have seven hens that began to lay the first of last December, and have laid more or less every day since, up to July 4th, 1863. But on that day, not an egg would they lay, but on the fifth they laid two, and have laid more or less ever since. Now, Mr. Editor, is not this quite an exhibition of Biddy's independence? A little show of love for her country? And who shall say that Mrs. Biddy is not in favor of universal "liberty?" L. P.

*Kittery, Maine, July* 15, 1863.

☞ The Treasury Department, having stopped printing the postal currency, is now burning that which is returned, preparatory to the new issue.

*For the New England Farmer.*

## THOROUGH DRAINING.

Written for, and read before the *Concord Farmers' Club*, by ALBERT E. WOOD, of Concord.

The first attempt at thorough draining that I find mention of, was commenced ninety-eight years ago, by JOSEPH ELKINGTON, in Warwickshire, England. The circumstances, as recorded, are these: "His fields were so wet as to occasion the rotting of several hundred of his sheep, and it was to prevent this that the draining was attempted. It proved a complete success. For his discovery, and the readiness with which he communicated the principles upon which his operations were conducted to the Board of Agriculture, the British Parliament granted him a reward of a thousand pounds." From this beginning, draining became quite common among the English farmers. In an English work upon agriculture, published at the beginning of this century, the author says: "Relieving land from superfluous moisture is one of the most important branches of husbandry. Unless that be accomplished, every other improvement of which the soil is susceptible must often be unsuccessfully attempted. Fortunately, no department of agriculture has been of late more anxiously studied, nor with greater success." It would seem, by this, that draining was well understood in England at that time. It has been a matter of considerable surprise to me that the subject did not sooner attract the attention of the farmers in this country. But this was soon explained when I came across an article in a work upon agriculture published in this country in 1818, in which the author says: "Labor with us is a given quantity, and very limited, too, in its amount. The great question among us ought therefore to be, how this given quantity of labor can be the most economically and profitably employed? If the amount of labor at our command will afford us a greater return of profit, if expended on our *dry*, than it would on our *wet* lands, then, certainly, every principle of economy would require us to put it on the former rather than the latter. If the return would be equal, then other considerations beside mere profit must determine us what course to take. Now it is an *unquestionable fact*, that we have not a sufficiency of labor to cultivate our dry lands to the greatest advantage. And it is another *unquestionable fact*, that the same expense—generally speaking—put on our dry or upland, will afford a greater return of profit than if put on our wet land." This article, in a purely agricultural work, must have very much dampened the zeal of the advocates of draining at the time. I have, however, no fear in quoting it, or of dashing cold water either upon the zeal or the meadows of the present company. However true the argument might have been at the time, I think it will hardly apply now.

Our subject to-night, is limited to the effect of thorough draining upon the soil and crops. This is a *deeper* subject than I at first supposed, and one involving chemical action beyond the knowledge of man, and vital functions but little understood. Yet, there is no subject in nature, I think, offering greater promises to the student than this study of the soil and the growth of plants. The seed is put in the ground, apparently, an inanimate thing, when lo, it springs into life. It puts forth roots, and branches and leaves, and in due

time, blossoms and brings fruit after its own kind. Throughout its whole life, from the dropping of the seed, to the final harvest, is it under the influence, and effected by the condition of the soil and the atmosphere, and these in a measure are under the control of the farmer. How important that he should know the extent of his power and how to use it! This should be our great study.

Thorough draining is one of the greatest means to promote the full and healthy development of the latent powers of the soil, by its rendering admissible every atmospheric fertilizing agency.

Carbonic acid, ammonia and water yield most of the elements for all the organs of plants.

Salts and metallic oxides serve peculiar functions in their organism, and many of them are necessary for their growth and perfect maturity, Let us see *from* what and *in* what manner these are taken by the plant. Perhaps we can render them some assistance by draining.

Our soil is composed of the debris of rocks and of partly decomposed vegetable mould, together with whatever we may please to give it in the way of manure. From the decomposition of those, the plants obtain most of their food. From the vegetable mould they obtain carbonic acid and ammonia, and from the rocks, salts and oxides. This decomposition cannot go on without oxygen, and this must be obtained from the atmosphere. In a soil to which air has but little access, the remains of animals and vegetables do not decay, for they can only do so when supplied freely with oxygen. They undergo putrefaction, which is exceedingly injurious, and often destructive to the plants in their immediate vicinity.

If the soil is saturated with water, the air has but little access, and the plants growing thereon go hungry.

In the beginning of a rain or snow storm, a large amount of ammonia is carried down to the soil from the atmosphere. If the soil is already saturated with moisture, the rain is not admitted, but runs off upon the surface, and the plants lose the benefit of it. In stagnant water in the soil, noxious substances accumulate that are often injurious to plants. Thorough draining only can remedy all these difficulties.

Thorough draining produces effects that are equivalent to a change of climate. Our growing seasons, here in New England, are already too short for the perfect maturity of many of our crops. Anything that shortens them must be an injury. Wet, underdrained land, cannot be worked upon till very late in the spring. It is so cold that it takes a long time to get it sufficiently warm to promote the growth of vegetation; the land is frozen to a much greater depth, requiring a longer time to thaw. Water is the only exception in nature, I believe, to the law that matter becomes more dense by cold, and expands by heat; it is most dense at about 40°, and expands both ways from this point. If land is saturated with water in winter, as it freezes it expands, and causes the land to heave. Small trees are often in this way thrown out of the ground, and many of our biennial and perennial crops injured, or entirely winter-killed.

Water passes from our undrained land almost entirely by evaporation. We often hear farmers speak of land as cold, and for that reason almost worthless. It *is* cold, and so is the atmosphere in its immediate vicinity colder than in the immediate vicinity of dry land. Frost will be seen much sooner in the autumn, and the growth of plants the sooner checked.

The cold is occasioned by the heat becoming latent in the vapor formed by the evaporation of water upon the surface of the soil. Evaporation is one of the most chilling processes in nature. Remove the surplus water from the soil and the climate is changed.

Thorough draining helps evaporation from the leaves. Water is one of the most important elements in the food of plants. Besides entering largely into their composition, it also acts an important part as a vehicle through which soluble matter found in our soil is conveyed into the system of growing plants. Yet too great a supply is injurious to them. Much of the water thus taken up passes into the atmosphere through the leaves by evaporation from their surface, leaving the soluble matter in the plants. But a limited amount of water can be thus evaporated. An excess of water weakens the solution, and of course, the plant gets less nourishment. This evaporation is essential to the growth of plants, and anything that checks it must be injurious. The air, at a given temperature, can contain but a limited amount of moisture. The warmer the air, the more moisture it will hold. If the land is too moist, the air is soon saturated by the large surface exposed, and much less is taken from the leaves. In this rapid evaporation, much heat becomes latent. The heat must be taken from the surrounding atmosphere, thus cooling it to a considerable extent, and this cooling lessens the evaporation from the leaves. Plants growing under such circumstances are much more tender and succulent, and are not able to withstand the colds of winter. Fruit loses much of its fine flavor, and will often burst from excess of moisture. This we have seen happen to the grape and plum in wet seasons.

The excess of moisture in plants forces a greater growth of leaves, and ill-formed shoots, instead of flowers and fruit. If the water is in great excess, it changes the color of the leaves to a sickly yellow. Soon the vegetable tissue enters into a state of decomposition and the plant dies.

Remove the surplus water, and evaporation from the leaves is increased; the plant better fed, the fruit more palatable, and the wood the better able to withstand the severities of winter.

Thorough draining, in a measure, prevents drought. During the spring and early part of summer, the roots of plants are kept from going down deep into the soil of wet, undrained land, by contact with the water—when the dry weather comes on, the water recedes but it is too late for roots to follow, and if they did, the soil is not a condition to furnish them food. They have but a shallow root and are soon injured.

Soil well drained becomes much more finely pulverized—capillary attraction acts with most power in smallest spaces—a finely pulverized soil the better draws up the moisture from the subsoil, and the better holds a sufficient quantity to sustain plants through a severe drought.

In a dry time, the soil upon undrained lands is hard and unpulverized. While the soil is in this condition, neither air nor moisture can be imbibed to any extent. The evening dew is taken up

again by the morning sun, instead of being drank in by the parched soil. Thoroughly drain it, and the roots of the plants go down below the immediate effect of the burning sun. The soil is more finely pulverized with half the labor. Capillary attraction draws up the moisture from below, and drinks in the evening dew.

Fruit and most forest trees are much helped by draining. They naturally send their roots far below the surface; this furnishes them with a broader field to obtain food from, and also protects them from drought. If prevented from doing this, they are stunted and of little value. If upon land wet but a portion of the year, they grow well, but seldom bear flowers or fruit. The growth of the tree generally stops in the early part of the autumn. After that time, till checked by the cold, it is busy at work laying by a store of nutriment to commence, and for a considerable time, to carry on the growth of the leaves, blossoms and fruit of the next spring. Unless this is done, there will be no blossom, and consequently no fruit. If the soil is in a fit condition, and the autumn mild, a luxuriant blossoming may be expected the following spring, unless the trees are exhausted by a great growth of fruit.

If, during the fall, the ground is wet and cold, the trees are prevented from laying up this store of nutriment, and therefore no blossoms are provided for the next spring, and no fruit can be expected, although the ground may be sufficiently dry to ensure a good growth of wood during the summer.

Thoroughly drain the soil, and the hungry roots no longer kept back by the chilling air and unhealthy contact with stagnant water, go deep down into the soil. The air has free access, decomposition is going on rapidly, the tree grows fast through the whole season, and lays up a store of food to commence with in the spring—thus producing a fine blossoming and a rich harvest.

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MICROSCOPIC WRITING.—At the London international exhibition, 1862, a machine for the execution of microscopic writing, was exhibited by a Mr. Peters, which has enabled the Lord's Prayer to be written in the 356,000th of a square inch—a space like a minute dot. The English Bible contains 3,566,480 letters; the Lord's Prayer, ending with "deliver us from evil," 223 letters; so that the Bible is 13,992 times longer than the prayer, and if we employ round numbers we may say it could be written in 16,000 times the space occupied by the prayer, or in less than the twenty-second part of a square inch, in other words, the whole Bible might be written twenty-two times in one square inch! This wonderfully minute writing is clearly legible when placed under a good microscope. In using the machine the operator writes with a pencil attached to one end of a long lever; whatever marks he makes on on a piece of paper are infinitesimally reduced in corresponding motions, by which a glass plate is moved over a minute diamond point. By means of a geometric chuck, beautiful geometric designs may be engraved on a similar scale of minuteness.—*Wells' Annual.*

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☞ Temperance puts wood on the fire, flour in the barrel, meat in the larder, vigor in the body, intelligence in the brain, and happiness in the whole family.

## THE HORSE HOE, OR ROTARY SPADER.

It is an axiom in farming, that if the crop cultivated costs all that it will bring to produce it, no profit will be left for improvements or for future support.

If a man should cultivate his corn entirely by hand, spading the soil and hoeing the crop, unaided by any mechanical appliances, he might find it difficult to sustain a bare existence, without any of the common comforts or elegances of life about him.

In the hard soil of much of the New England States, especially if the farmer had been obliged, for the last fifty years, to produce his crops aided only by a few of the most common and simple agricultural implements, the aspect of these States would be very unlike what they now present. Indeed, a scanty subsistence, without much progress in education, in architecture, in the arts or sciences, would undoubtedly have been the result.

It is as reasonable that the farmer should avail himself of the advantage of mechanical contrivances in his business, as it is that the manufacturer of cotton or woollen cloth should do so in his, or the traveller take to the cars, instead of making his journey on foot.

The rapid progress to wealth in the free States, the great changes which have taken place in the style of our buildings, vehicles, furniture, &c., and the vast amount of labor which has been averted from human hands, to steam, water, or horse power, may be fairly attributed, in a great measure, to the inventive genius of our people, and to the industry and skill of our mechanics. The farmer himself is greatly indebted to the mechanic for the facility and cheapness with which he gets his crops, and, consequently, in an indirect way, for a higher moral, intellectual and physical position in life. Mechanism is the handmaid of agriculture. Separated, they both fail to work out their great mission in feeding and elevating the world.

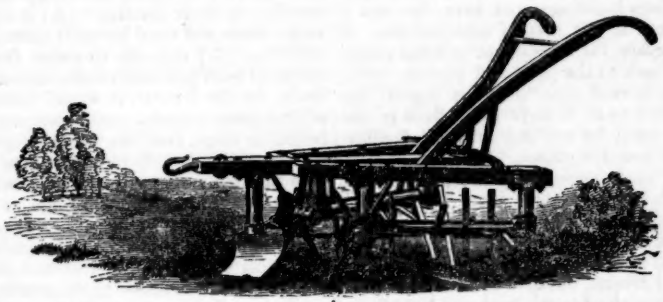
These thoughts have been suggested by witnessing the operation of a new agricultural *machine*, which is illustrated on the following page. There is a little too much of it, and it combines too many principles, to be termed an *implement.*

By a careful inspection of the engraving, the reader will perceive that, in outline, this machine greatly resembles the common expanding cultivator now so generally in use. Instead of the cultivator teeth, however, it has, forward, directly under the draft hook, a small plough, with mould boards turning each way. Behind this is a perpendicular iron wheel having six spokes, but no felloes, and then a horizontal shaft with several iron teeth passing through it, and projecting from it some six or eight inches. Both sides are alike.

When power is applied, the machine is drawn forward, and the spokes of the perpendicular wheel penetrate the soil and set the horizontal shaft revolving. The result is,—

1. The plough *lifts and displaces* the soil in the centre between the rows of plants, to any depth desired, not exceeding six or eight inches.

2. The spokes of the perpendicular wheel penetrate the soil on each side of the furrow made by by the plough, and *lift that up*, also, so that a space equal to the whole width of the machine is actually displaced,—and then, as the machine advances, the arms of the horizontal shaft throw up and strike the particles of soil, dashing the lumps to pieces, if there are any, and shaking the fine earth out from among the roots of witch or other grasses! The result of these combined motions is wonderful.



1. The soil is made loose.

2. It is made fine, or pulverized.

3. Much of the grass roots and weeds are thrown up by the teeth on the shaft, and left on the surface.

4. The land is left flat, or level.

5. By changing the perpendicular wheels to the *inside* of the shaft—which can be done in three minutes—the soil is thrown into hills.

We saw the operation of this machine on a field that was in sward in the spring, and which was ploughed only six or seven inches deep. It was planted with corn, and the hills laid in squares. The machine was run through both ways. Over a portion of the field, the work was left flat, and then the wheels changed so as to throw up hills, and wherever the machine had been there was, literally, *no work left for the hoe!* The surface was left mellow and even, the grass torn up, and just enough of the damp, light soil thrown in among the stalks of corn to give the whole work the most beautiful and finished appearance. Any boy, or girl, old enough to go along and pull an occasional weed from among the spears of corn, would have finished the work of the field! This was accomplished on sward land, in shallow ploughing, and without disturbing the sod in any objectionable degree.

As to draft, we did not see that it was harder than to draw the common cultivator. This machine *is moved upon wheels*, while the cultivator is moved by a dead pull or drag.

We have witnessed the operations of this machine at three different times: Once upon a deep, mellow loam—once upon a tough inverted sward, free of stones, and once upon a pasture sward, full of cobbles and fast stones, and in each place it was a "wonder-working machine."

There is still another place for it, where we think it would perform a most admirable work—and that is on sod land, ploughed for laying down to grass. What an admirable bed it must prepare for seeds as small as are most of our grass seeds. And so on sward turned over for planting with corn or potatoes. On such land the harrow pulverizes to a certain extent, but it cannot leave the surface in anything like the condition in which it is left by the *Rotary Spader*.

From what we have seen of this new *civilizer*, it seems to us that it is destined to take a leading place in labor-saving machinery—that just so far as it will facilitate the operations of his fields over present practices, it will *put money in the farmer's pocket*, and, indirectly, increase the means of education and all the opportunities of securing more of the comforts and excellences of life.

Dr. D. Colby, of Claremont, N. H., is the inventor of the *Horse Hoe*. The proprietors are J. P. Upham & Co., of the same place, to whom any inquiries may be addressed.

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Medicine to Horses.—"I consider the usual method of giving medicine to horses by drenching, as it is called, highly objectionable. In this process the horse's head is raised and held up, a bottle introduced into his mouth, his tongue pulled out, and the liquid poured down. In his struggle some of the medicine is quite likely to be drawn into his wind-pipe and lungs, and inflammation and fatal results sometimes follow. A better way is to mix the medicine with meal, or rye bran; make it into balls, pull out the horse's tongue and place a ball as far back in his mouth as possible, then release his tongue; he will almost certainly swallow the ball. Or, the dose may be mixed with meal and honey, or any other substance that will form a kind of jelly, placed upon a small wooden blade made of a shingle, and thrust into the back part of his mouth, when he will very easily swallow it."—*Patent Office Agricultural Report.*

*For the New England Farmer.*

## RETROSPECTIVE NOTES.

FARM HOUSES AND OUT-BUILDINGS.—On page 170 of current volume, June No., is an editorial notice of a recently published volume which contains Designs for Cottages, Villas, Mansions, &c., with their accompanying outbuildings. The remarks of the Editor deserve to be well considered and remembered by all who are at all likely to build either house or outhouse at any future time; for undoubtedly those who duly consider them, and act in accordance with them when the time of planning their projected buildings shall have come, will be much profited thereby, and may reckon the advantages derived therefrom as one of the more memorable instances of the benefits received from their agricultural reading. Those who take the wise counsel contained in the Editor's remarks will surely be benefitted thereby, for by adopting the course recommended they may escape much or all of the inconvenient arrangements and unsightly looks which are but too common among farm buildings, and save, too, not a little sometimes in the cost of construction. *It will pay*, therefore, for those about to build especially, to turn back to the page and passage referred to, and to so read and "inwardly digest" the remarks referred to as to have them fixed in the memory, and ready for use and practical application when the occasion comes.

Among the many astonishing things which are to be met with every now and then, scarcely any have surprised us more than the *self-sufficiency* which many or most of our brethren display on occasions when it would be, not only exceedingly reasonable and proper, but also certainly for their interest that they should seek help and light from all the sources within their power. Such an occasion is the investing of several hundred dollars in a farm house; and yet, though there are so many inconvenient and unseemly buildings, or so many blunders made, how seldom have we known of any one about to build resorting to any book or periodical in which the information might have been had, which the occasion seemed to us to render so important, or even indispensable.

"PROFITS OF FRUIT CULTURE."—Page 170.—The brief paragraph with the above caption, copied from an exchange paper, is likely to cause some young beginners, and persons of greater hopefulness than thoughtfulness, to form quite extravagant and exaggerated ideas of the profitableness of fruit culture. And as such erroneous ideas are likely to lead to plans and procedures which must be followed by losses and disappointments, it has seemed as if there were an obligation resting upon any one who could present more correct views—views more in accordance with facts and the reality of things—to make a presentation of them, both for the truth's sake, and for the sake of all concerned. Into what extravagances and disappointments might not some be led who should read the first statement in the paragraph referred to, and should get the impression that it was a quite common occurrence, an event to be calculated upon, that an acre of apple trees—at least of Baldwins and Russets—will produce an income or profit of $800 a year! The statements which follow are submitted with the intention and expectation that they will aid those interested in forming conceptions, as to the profit of fruit culture, less likely to mislead, and more in accordance with the average results of an extensive experience, and of ordinary experience. We would not intentionally say anything that would discourage any one from giving a large share of his time, attention and labor to the growth of fruit, for this department of farming has charms and rewards of great value in addition to its pecuniary profitableness; but we think that it is, for several reasons, much more desirable that those about to engage in it should do so with reasonable expectations as to the results or expectations in accordance with ordinary experience, than with hopes based on error and destined to disappointment.

Another consideration which seems to make it of some importance that extravagant ideas of the profits of fruit culture should be corrected is this—that such expectations tend to put out of sight some of the rewards of such labor which are of a higher and purer nature than pecuniary profits. Men should more extensively engage in fruit growing, because [1.] it would contribute to the greater comfort of their families; [2.] it would tend to make home and rural pursuits more attractive to children; [3.] it tends to refine the tastes and habits of both producers and consumers; and [4.] lastly, for the present, it would make the supply of fruit more abundant and more attainable by the people at large, and this would certainly be both a blessing and a benefit to multitudes.

With such reasons for thinking extravagant estimates of the *pecuniary* profits of fruit-culture rather pernicious, let us endeavor to determine what might be accepted as a reasonable or moderate estimate of the profits of the most common branch of this business—apple-growing. We could not find, probably, any testimony or statement as to this point more reliable than that of J. J. THOMAS, author of *The American Fruit Culturist*. After stating that for the past thirty years such varieties as the Swaar, Rhode Island Greening, &c., have scarcely varied from twenty-five cents a bushel in places remote from a ready market, Mr. T. says, "An acre of forty trees, with good culture, will average through all seasons not less than 200 bushels, or $50 a year. Instances are frequent of thrice this amount. The farmer, then, who sets out twenty acres of good apple orchard, and takes care of it, may expect, at no remote period, a yearly return of $500 to $1500, and even more if a considerable portion is occupied with late keepers. This is, it is true, much more than the majority obtain; but the majority wholly neglect cultivating and enriching the soils of their orchards."

For the first five years a young orchard yields no profits; and for five years more the profits will be small after paying for care and labor. After ten or twelve years trees ought to produce *on an average* between five and ten bushels per tree, or an acre of 40 trees 200 to 400 bushels. After paying for picking, and marketing, &c., *the net profit*, at the price named above, would be about $35 for a crop of 200 bushels, and $80, or about that, if the crop should be as much as 400 bushels. Is this too low? MORE ANON.

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☞ The barque Western Metropolis lately transported at one trip from Chicago to Buffalo 72,000 bushels of oats and 1000 barrels of pork—the largest cargo ever moved on the lakes.

## NEW BOOKS.

THE LIFE OF WILLIAM T. PORTER. By HORACE BRIMLEY. New York: D. Appleton & Co., 1860.

Although this volume was published some three years ago, it is but recently that it met our eyes. Mr. Porter was born in Newbury, Vt., in 1809. After an apprenticeship at the printing business in Andover, Mass., he was connected, for a few months, with papers in St. Johnsbury and Norwich, Vt., which latter place he left in 1830 for New York. Here, in December, 1831, he commenced the publication of the N. Y. *Spirit of the Times*, a paper which soon became quite popular with the class for whom it was designed; and as editor of which the biographer claims for Mr. Porter the distinction of being the "father of a school of American sporting literature." Among the compositors who were employed on the first volume of this paper was HORACE GREELEY, now of the N. Y. *Tribune*, and STILMAN FLETCHER, Esq., our able Reporter of the cattle markets, who had also worked for Mr. Porter in Norwich, Vt.

Interwoven with the biography of William T. Porter, are sketches of his four brothers, three of whom assisted more or less in the management of the paper. One of these brothers abandoned the profession of medicine and another of law, to write reports of horse races, criticisms on theatrical performances, and descriptions of other scenes of sport and recreation. The great popularity of the *Spirit of the Times* attained is evidence of the ability and tact of these brothers.

And here, perhaps, we ought to close; as we can commend the volume only as a beacon or warning against the "fast" life which it chronicles. We have too long and too earnestly sought to encourage and honor useful labor and straightforward industry, to be pleased with the boast on page 87, that the patrons of a certain club-house, among whom the Porters were prominent, "despised anything like mercantile pursuits;" or that on page 270, which exults that, "This literature," —that represented by the *Spirit of the Times*,— "was not stewed in the closet, or fretted out at some pale, pensioned laborer's desk." If ever we find ourselves hard pressed by the complaints of any farmer's family of their unending toil and drudgery, we may prescribe as an antidote the perusal of this book. None of the four brothers, we believe, who were associated as editors, ever married, and all died comparatively young. Of William, shortly before his death, the biographer says: Care, disappointment and that sickness of heart which he concealed from the world, began to tell on face, and form, and mental activity." In an obituary of another it is said: "His temperament was of a character that, added to disappointments and private griefs, with which the stranger intermeddleth not, occasionally clouded his mind with fits of morbid gloominess and abstraction." For a third of the brothers, regret is expressed that he left his profession, as in it "with one-half the persevering industry which he exhibited while connected with the press, he must have risen to eminence."

In conclusion, we may say that the biography of these talented brothers is an illustration of the sad mistake committed by those who make *enjoyment* and *happiness*, instead of *duty* and *usefulness*, the great object of life.

## FARMING IN NEW MEXICO.

A correspondent of the Wisconsin *Farmer*, writing at Barclay's Fort, New Mexico, gives an interesting statement of facts in relation to this portion of the country, from which we copy the following:

The lands which are cultivated are productive to a degree perfectly astounding to a stranger, when the mode of cultivation they have undergone, and exposure suffered for all past time, are taken into the account. Sometime in the month of April, May or June, and the people are not very particular about the time, all the weeds and vegetables on the land are burned up, and the water is let out of the ditch upon the piece of land to be cultivated, and is made to run over every part of it. Without this the land is too hard for ploughing. The seed, if wheat, oats, barley or peas, is then sown over the land, and ploughed in, generally, with a Mexican plough, never more than three inches deep; after which a log is drawn sidewise over the land and the small ditches cut for future waterings, and the work is done till watering time arrives. Corn is planted in the same manner, except the seed is placed in the bottom of the furrow at proper distances apart, and is covered by the next furrow. Crops require about two waterings to perfect them. The yield exceeds belief. Wheat, which excels all other crops, not unfrequently gives fifty times the amount sown, and is of a superior quality. A hundred to one has been known.

## NEW VARIETIES OF GRAPES.

The Fruit Committee of the *Massachusetts Horticultural Society*, in their report, by Mr. CABOT, thus notice two new varieties of the grape:

"There have been some new or hitherto little known varieties of grapes exhibited, of which brief notice may not be thought out of place herein. One, which attracted the attention of the Committee by its good qualily, was called the Crevelling. But a single bunch of it, grown in Salem by Mr. Bosson, was exhibited at the Annual Exhibition. It was a black, not large berry, sweet and spirited, that made a favorable impression on the Committee and all who tasted it; it is an early grape, ripened the past year on a vine trained against a fence, on Sept. 14th. This variety may not be new, but it has never, as is believed, been before fruited in this vicinity; it is, as is understood, an accidental seedling and comes from Mr. Goodwin, of Kingston, Penn. Some specimens of a new seedling grape were presented by Mr.

Charles J. Power, of South Framingham, represented as a seedling from the Isabella, now in its third year of bearing, the vine being seven years old, and as fully ripe this year on Sept. 15th; said to be an abundant bearer, the vine perfectly hardy and that does not drop the berries; the vine having been grown on an open fence without protection from the north.

The impropriety of christening fruits with the names of persons is well illustrated by the following sentence, in reference to specimens of new grapes from Ohio, which occurs in this business-like report:

"It appeared to the Committee that Lydia was rather acid, that Mary was pretty good, with a thick skin, and that Ellen was rather subacid, with somewhat of a Catawba flavor."

*For the New England Farmer.*

## PREPARING AND APPLYING MANURES.

By preparing, I do not mean providing, but the condition or state it is in when used in the field or garden. It may seem out of season, now, for this subject to be brought up, as most farmers use the great bulk of their manure in the spring and early summer—still, there are many who apply it to their meadows immediately after haying is over, regarding it as the best time for doing so. This class, I am glad to know, is largely increasing. Some, however, do not give much, if any thought as to the condition the manure may be in, and exercise still less in its application, if we are allowed to judge from what we frequently see, on passing their premises. How very often do we witness large masses, or lumps, thrown out and left unbroken, to waste much of its value by drying, and if it is strong, killing the sward where it lies, being a positive injury, rather than a benefit. Then, again, how many in the spring, when using manure for field or garden crops, use it in the same unpulverized state.

I know a farmer who can talk very glibly, and often well, about farm managements, who, the past spring, hauled out his manure from his yard without digging it over and pulverizing, and put it in heaps very uniformly over a piece designed for corn. Shortly after he had got it out, I passed that way, and he was ploughing the piece, and the manure was spread over not more than two-thirds of the surface of the ground, if, in reality, it covered more than half. Large lumps, from the size of a goose egg, to the size of a man's head, embraced the largest part of the application. Suppose the corn that was planted there capable of thought, and expressions of thought, would there not be heard emphatic complaints of injustice from all portions of the field, and with good reason, too? Suppose this man had spent the time requisite to have thoroughly pulverized his manure previous to hauling it out, and when hauled out, spread it evenly over all the surface of his field, who doubts but it would have resulted in fourfold profit on the labor expended. So, too, it often happens with very many in all their farm operations—too much in a hurry to get on with their work, or an insufficiency of help to properly accomplish what they have planned. It is a well established fact, with thorough farmers, that no work on the farm pays better for being thoroughly done than the pulverizing of manure previous to using it. When this is done, and it is spread evenly over the field, the crops will inevitably show their appreciation of the care bestowed upon the preparation of their food.

As to the best method of spreading, differences of opinion prevail; some contending for putting out in heaps previous to spreading, others spreading from the cart or wagon as it goes to the field. I favor the latter method, generally, and always upon grass land or mowing lots. I have found trouble in getting men to spread as evenly over all the surface from heaps, as from the cart or wagon, often having been compelled to have them go over it twice, or even more than that, to get it properly done. On meadows, I prefer using a cart, tipping it so as to put a block a foot or so long under the forward end, and spread with a shovel from the hind end. This tipping brings the work handy to the workmen, and relieves the neck of the oxen. A hoe, fork, or some such implement is very handy in hauling it down from the forward end of the cart. In this way, I find my manure much better spread than by any other method I have used, and quite as quickly done by men who have been accustomed to doing it so.

However fine your manure may be, it will be for your interest to go over your meadows with a brush, which I make in this way: take a three by six or seven inch oak scantling, eight feet long, bore two inch holes, sixteen inches apart, get good bushy white birches of proper size, and you have got a thorough implement for the work. If not sufficiently heavy, throw on a rail or some suitable thing. This brush will rub the manure into and among the grass stubble so that but little of it will be seen unless closely looked for. The first rain that falls will effectually dissolve its particles, and the grass immediately assume a cheerful, smiling aspect, indicating its appreciation of your wise provision for its welfare. I have used the brush where I spread manure for ploughing under with the assurance that it was labor wisely expended.

K. O.

*July*, 1863.

*For the New England Farmer.*

## CULTIVATION OF RYE.

The attachment of the people of New England to rye as an article of food is rather remarkable. I believe there is no part of the world where this grain is so much eaten from choice as with us. In Great Britain it is not used as food for man. In Russia, in the northern parts of Germany, and in some of the poorer Departments of France, it is eaten largely, but it is by the peasantry, and from necessity, not from fondness as with us. In England and Scotland, oatmeal and barley-meal are used by those who desire a variety in their food, or a cheap diet. On the continent of Europe they have a poorer kind of wheat, of inferior quality and lighter than the fine wheat, which is called spelt, which is cultivated for food, and takes the place of barley and oatmeal in England, and of rye and Indian corn meal with us. It seems to me that the cultivation of rye for food among us might be profitably changed for some of these other grains. Barley on good lands is a profitable crop, yielding more to the acre than wheat, and bearing a higher market value than any other grain except wheat. It may be used for all purposes that rye may be, for the food of man, mak-

ing a more palatable bread. Spelt has the advantage that it may be raised on light and poor soils.

I will suppose that on our good soils thirty bushels of rye may be raised. The weight of this crop will be fifteen hundred pounds, and its value about twenty-one or twenty-two dollars. An equal quantity of barley may be raised, worth thirty dollars, or spelt about an equal quantity with rye, and of at least equal value, or about three to five dollars more on the thirty bushels. Perhaps its value would equal that of barley. I don't know, therefore, that there is any more profit in raising rye than in raising barley or spelt, and as an article of food, probably rye is the least nutritious and least palatable of the three. Though rye is popular among us for some cause, I cannot but think that if barley meal or spelt flour, or oatmeal, or some other succedaneum were once introduced among us that rye would give way, and we should dispense with its use. Corn bread, as it is called, made in the Pennsylvania and western method, is a true luxury, which we do not enjoy here, only because, I think, it is not known. The corn used is the soft kind, and the meal is ground very fine and mixed with milk and egg;—making the most nutritious, and to my taste the most palatable of all kinds of bread. It is very different from the cakes made of that meal in our State. We have not learned here the true value of corn meal for breadstuff. The middlings of wheat flour makes a very good coarse bread.

There is an account of spelt in the Report on the Agriculture of Germany, contained in the Patent Office Report for 1847, I think, and also in Mr. Colman's work on European Agriculture. It is cultivated in France and Germany, but nowhere in this country, so far as I am informed. Perhaps some is raised in Pennsylvania,

GOOD BREAD.

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*For the New England Farmer.*

## RETROSPECTIVE NOTES.

"THINGS TO BE LEARNED."—FRAUDS ON FARMERS.—Under the former of the above headings we have, in the weekly issue of this journal of May 23d, and in the July number of the monthly edition, a very sensible article intended to caution farmers against being imposed upon by any of the tricks and frauds which a numerous class of harpies and vampires, thieves and robbers, are ever ready to practice upon the honest and unsuspecting farmer. The writer has portrayed "to the life" some of the tricks played by jockeys, dealers in cattle and other stock, and buyers of farm produce, and has given, in four very shrewd and judicious directions, instructions how to avoid being caught in any of the snares and traps which this class of scoundrels and purse-suckers are ever and anon setting for the unwary, with all that "cunning craftiness whereby they lie in wait to deceive."

The article now under notice is entitled to especial attention for several reasons, two of which may be briefly named. First, then, it is excellent and praiseworthy in virtue of the aim, purpose or intention, which very obviously actuated the writer, and which all readers, save the most heedless, or dull-brained, must perceive to be this—to warn farmers of a class of dangers which they must encounter now and then, or to point out some of the frauds likely to be practiced upon them, and, at the same time, to suggest some of the things which may be done whereby this danger may be greatly lessened, or avoided altogether. This is certainly a noble purpose, and the man who employs two or three hours of his time in writing out the words of warning which seem to be needed, ought to have some evidence that he is duly appreciated, so far, at least, as the aim or purpose of his writing is concerned.

Another reason for thinking this article worthy of more than ordinary attention is this—there is more than ordinary ability manifested in the construction or composition of it. As we have already said, the portraitures of the rogues and robbers, who go about seeking whom they may devour, are drawn very graphically, and "to the life," and the directions given for detecting them, and avoiding being caught in their traps, are proofs of superior good sense and soundness of judgment. There is, in a word, a noteworthy, intellectual and literary ability in the article, which it is pleasant to be brought into contact with, and which gives force to the words employed to secure the object aimed at.

The fine moral tone also of the article under notice can scarcely have escaped the observation of readers of ordinary discrimination, and might be named as another of the reasons which entitle it to special regard. But time is precious, and space has limits, and therefore we leave the article to make its own impression, and to do its intended work. Those who re-read it carefully, will, we doubt not, see it to be possessed of the merits, in purpose and in execution, which we have claimed for it. It must be pronounced an excellent article, and its great purpose a most praiseworthy one. The farmers, above all men, are liable to be imposed upon, and every effort to protect them from the harpies and vampires who are ever seeking whom they may devour, should be gratefully acknowledged and duly appreciated. And not this only, but every such effort should be imitated, seconded or helped on in some way, as we hope the present one will be. We should all feel *under obligation* to do something to abate the evil complained of.

There is room or opportunity for more efforts of the same kind as that which has been under our notice, for other frauds are practiced upon the farmer, and other rogues contrive to get hold of some of his hard-earned dollars. There are, for example, speculators in wool, advertisers of novelties and humbugs in seeds, &c, and, (bad as any other set of the rogues who prey on farmers, or perhaps worse,) the manufacturers and venders of spurious superphosphates and other commercial manures.

Now that a *Rogues' Gallery* for the benefit of farmers has been so successfully commenced in the columns of this journal, it is earnestly hoped that similar portraits of those other orders of this comprehensive class of thievish animals may be continued until the gallery may be considered complete. Whoever, actuated by public spirit, and benevolent feelings, shall make farther contributions to this gallery, and whoever, especially, shall portray in hideous colors the swindling manufacturer of worthless trash which is sold to farmers under the name of superphosphate, will confer a favor on his brethren, by enabling them to detect and escape the snares set to entrap and rob them, and will, also, earn for himself, a right or title to his own respect and the respect of all who love

justice and hate robbery and wrong doing.

"DESTROY THE CATERPILLARS."—From the opening sentences of this article, which may be found on page 200 of current volume of this journal, or in weekly issue of May 30th, it seems highly probable that some one in Nova Scotia has got up a trap in which he hopes to catch some of the farmers of the United States, who may not be quite as well posted up in agricultural knowledge, or as familiar with agricultural literature as they might be to their own advantage. In other words, some one "is announced in the *Ploughman* to have discovered an infallible substance for the destruction of caterpillars," by which every vestige of them can be destroyed from a hundred trees for $1 20.

Thanks to the editor, who has shown his readers how this destruction of caterpillars can be accomplished at much less cost, and has taught them that the chief expense that needs to be incurred in that destruction is simply *the time occupied* in the work, No one, therefore, of the readers of this journal is likely to be caught in any trap baited with promises of the kind referred to. They will be more likely to use the money asked for "an infallible substance" in the purchase of *Harris' Treatise on Insects*, or some other source of light and knowledge. As Dr. Harris speaks of refuse soap suds as an application to the caterpillars, some may be led to use suds that are too weak. We would say, therefore, that to ensure destruction of all touched by the suds, they ought to be as strong as possible, from one to two quarts of good soap being used for one pailful.

MORE ANON.

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A NEW ENEMY.—Charles B. Pelton, of Makanda, Ill., thus describes a new worm at the root of peach trees:

We have another worm here, infesting the peach tree, which I have never seen described. It is from one-half to three-fourths of an inch long and the thickness of a sewing thread, white, with two brown bars on the back near the head. These bars are only seen under a magnifier. My sons and I call them "thread worms" for want of a better name.

Unlike the borers, each of which has its own burrow, these worms are found in numbers together—dozens, scores, and sometimes near a hundred, attacking the tree below the surface of the ground.

They are not "cut out," but pulled out of a broad, shallow hole, often twisted together as the common earth worms are sometimes found. Indeed, they might readily be taken for young earth worms by a careless observer. After clearing the tree of them we apply lime or ashes, or a mixture of both, which destroys any we may have overlooked. I think them more injurious to trees over two years old than the borer.

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WOOL-GROWING IN MICHIGAN.—In this State rapid progress has been made in wool-growing. In 1840 the product was but 150,000 lbs.; in 1862, it was 6,915,192 lbs., which assigns Michigan the fourth position among the loyal States. The clip for 1863 will be between *nine and ten millions of pounds*, this at an average of 55 cents for nine million lbs., will amount to $4,950,000!

## MANURES---QUANTITY---QUALITY.

What follow are extracts from an essay upon *making, preserving* and *applying manures*, by Capt. ELIJAH TUCKER, read before the Milton Farmers' Club, and sent to us for publication.

It is an old adage that "manure is the mother of corn," or as others express it, "it is the parent of all profitable vegetation." I have seen it stated somewhere that a hard-working but unsuccessful farmer went to a thrifty neighbor for information, requesting a leaf from his book on farming; he was told that the first requisite was manure, the second, manure, and the third the same; and after explaining his method of saving and preparing it, especially the urine, the man went home, did likewise, and became a prosperous farmer. I believe the attention paid to manure by any farmer indicates pretty nearly the condition of his farm.

If a farmer has a barn cellar, with a bottom water tight, covered with loam, muck, or other suitable substances, sufficient to absorb the liquid portions of the manure, he has a foundation for a good manure heap; and if it be enclosed in front so as to exclude the frost and air, so much the better. The excrements of all his animals, including the urine, should be dropped through scuttles into the cellar. By many, the liquid manure of an animal is considered as valuable as the solid, some even estimate it higher, and say that rich food improves one as much as the other. The urine discharged from different animals is said to differ very much in quantity and quality. One writer says, that a horse discharges on an average about three pints in twenty-four hours, and a cow forty pints. If this statement be correct, it will be seen that a cow evacuates more than thirteen times as much as a horse. That there is a difference in different animals, I believe; but of the correctness of the above comparison, I entertain strong doubts.

As most farmers keep different kinds of stock, the manure of all would be improved if it should be mixed in one heap. This is easily done when cattle are kept in the stable during cold weather, and also in summer if the soiling system be practiced; according to some writers, manure made by soiling in the summer is much more valuable than that made in the winter. The strength of manure, however, depends almost entirely upon the food which the animals consume. As the heap in the cellar increases, loam, muck, or other suitable ingredients should be mixed with it. This mixture should be determined in a great measure by the quality of the soil on which the manure is to be used; if it is cold, wet and clayey, I prefer sandy loam or some other warm material; if light and porous, muck or some other tenacious substance is necessary. In adding ingredients to manure, judgment should be used, because if too much be added it will injure the quality more than it will increase the quantity. Farmers have been sometimes heard to say that with a certain number of cattle they could make so many cords of manure, but the *size* of a manure heap is no true test of its value. I think a man might with about as much propriety say that he could make a barrel of cider from a bushel of apples, as to say that he could make in a year ten cords of manure from one cow. The late Mr. Phinney, of Lexington, once said, "a cord of green dung converts twice its bulk of peat into a manure of equal value

to itself; that is, a cord of clear stable dung composted with two of peat, forms a manure of equal value to three cords of green dung." Although Mr. Phinney is considered high authority in such matters, his theory in this particular does not accord with my experience.

If I am called upon to appraise a pile of manure, I want to know how much stock has been kept, and how it has been feed; and then, if the manure has all been properly saved, I think that I can judge pretty nearly of its value.

If the size of the cellar will admit of it, the manure should be mixed and remain in it until it is wanted for the field. If not large enough, (and this may be known before the ground freezes) a bed of peat or loam should be made, say six or eight inches deep, and on a still, damp day, the contents of the cellar may be carted on to it; only as much should be removed at a time as can conconveniently be done, and then immediately covered; the loam or peat underneath will prevent a loss *downwards*, and the covering will prevent the gaseous or volatile properties from escaping *upwards*.

Composting manure in a situation in which its volatile properties escape into the air, or its liquid products soak into the ground not intended for vegetation, is in my opinion very slovenly and wasteful. The steam or gas which is suffered to escape from fermenting manure, is not only almost lost to profitable vegetation, but what is still worse, it fills the atmosphere with an effluvia injurious to health. When a distiller allows his still to be put in operation without a cover to collect and secure the steam, then perhaps a farmer may suffer a fermentation to be going on in his dungheap without a covering.

During warm weather, the practice among farmers in this vicinity is to let their cattle graze in the pasture during the day, and yard them over night. By this method, the manure dropped in the yard is not so easily secured from loss as that made in the stable. This custom is ruinous to our pasture land. It is to this practice that I attribute, in a great measure, the deterioration of our pastures.

A farmer may have a good receptacle, drop his manure therein, and mix suitable ingredients with it; but the *state*, the *quantity*, the *manner* and the *time* in which manure can most profitably be applied to the soil, are questions not so easily solved.

Notwithstanding the light which scientific writers have thrown upon this subject, the manner in which manures operate, the best methods of applying them, and their efficiency and durability, are still subjects of discussion among intelligent farmers. Perhaps there is nothing connected with farming about which practical farmers differ more, than the *state* in which manures should be applied. One author says: "A controversy has existed some years relative to the degree of fermentation which manure ought to undergo before it is applied to the soil." Some writers contend that it should be used in a green, unfermented state, and others that it should be used until it is so rotten and fine as to be easily cut with a spade. I might fill pages with extracts from distinguished agriculturists, who differ widely on this point. But a short quotation from the editor of the New England *Farmer*, many years ago, will perhaps be sufficient. He says, "the advocates for long manure, and the sticklers for short manure, are in our opinion both right in regard to some of the points in controversy." I am of the same opinion, and think it depends very much on the crops to be raised, and the soil on which the manure is to be used. For roots, vines and small vegetables, fine manure is probably the best; also for top-dressing dry land; but for common field crops, such as corn and potatoes, and for top-dressing moist, heavy land, green manure is probably the most profitable.

The *quantity* of manure which it is profitable to to use per acre is another subject of discussion. Singular as it may appear, I think this depends, in some measure, on the price of land. If a man has land enough, or can buy it at a low rate, his object should be to make the most of his labor and money; whereas if land be worth $500 per acre, he should endeavor to realize the most from each acre. Some crops, however, require more food to bring them to maturity than others.

Again, the *depth* to which manure should be buried is a controverted question. As the tendency of manure is downward, I believe much more is generally lost by being buried too deep, than too shallow. Orcharding may be an exception. For tilled crops I prefer to have manure covered, but left quite near the surface.

Once more, the best *time* for applying manure is not a settled question among farmers. I believe, however, the prevailing opinion is that for tilled crops, manure ought to be applied immediately before dropping the seed, but for topdressing grass land, opinions are various. I prefer a damp time in the month of August. The aftergrowth will then soon cover it and prevent much loss by evaporation. I will here observe, that although I am satisfied that high cultivation is generally the most profitable, yet if a man has land enough, I would not recommend using so much manure at a time for topdressing grass land, as to cause the grass to lodge in ordinary seasons; because I think that a ton of hay can be made with as little expense where there is only a ton and a half to the acre, as if there were more, and the quality of the hay will be much better.

I am happy to say that we have among us gentlemen of wealth and taste, whose object probably is not profit, so much as it is health and pleasure; and although it may not always be prudent for farmers of small capital to follow their example, yet I think they are an advantage to any community in which they live.

If a young man of limited means intends to make farming his business, he must, in order to get an honest living, make it profitable. It is for this latter class that these remarks are chiefly intended.

When charter'd banks refuse to loan,
And merchants feel depressed;
The farmer's bank of peat and muck
Will discount then the best.

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POPLIN.—A London journal of fashionable intelligence thus lays down the law about poplin:

Poplin is beginning to be worn, but in the matter of fashion in England it will be swayed in a very great measure by the Princess of Wales. We may without hesitation predict that silver-gray poplin will be very fashionable this season. It was this material the Princess wore on her entry into London, and it is historical as having been ordered by her as a pleasant surprise to Her Majesty, whose favorite hue it is.

### SHEEP, WOOL AND LAMBS.

In a letter dated July 13, from J. M. JONES, Esq., of Amherst, N. H., he says: "I have just got through shearing sheep, and from four lambs and two old ewe sheep—Spanish Merinos, Humphrey's importation—have taken, from the four lambs 37 pounds of wool, and from the two ewes 23 pounds. I bought them of STEPHEN ATWOOD, of Watertown, Conn. They were sheared of eleven months growth of wool. From 20 sheep, purchased of STEPHEN ROWELL, of Weare, N. H., I have taken 128 pounds of clear, washed wool, and each sheep had a lamb by her side. From 12 Cotswold sheep, 142 pounds washed wool. From the skin of a buck that I had die, I pulled *thirty-two pounds and nine ounces* of wool. I bought him of Mr. Atwood. He was full blood Spanish Merino, three years old, and I believe the best buck of that blood in America.

I see that Vermont claims to be ahead of the rest of the world in sheep and wool raising, but I do not intend to have them enjoy that reputation much longer."

We regret our friend's loss of his noble buck. Vermont must look out for her laurels, if *Farmer Jones* is trying titles with her.

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RAT STORIES.—A French paper—*L'Abeille Cauchoise*—records the following instance of the voracity of rats, which it declares has just occurred at a farm near Yvetot: The proprietor of the farm, M. Panchout, had a pig so exceedingly fat that it could scarcely move, and was nearly always asleep. Three nights since he was awakened by hearing the squeals of the animal, and on going to the sty found that a number of rats had attacked it and eaten their way into its fat to the depth of four inches. The pig was so much injured that it was found necessary to kill it immediately. The *Journal de Rouen*, after giving the above account, mentions a circumstance which occurred to a gentleman of that town not long since: On returning from a residence in the tropics he wished to bring back a serpent about six feet long. He accordingly put it into a large box, and along with it a number of live rats for it to kill and eat when so disposed. On opening the box, however, he found that during the passage the rats had not only eaten all the food enclosed for them, but had also devoured the serpent itself.

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HEAVES IN HORSES.—The following statement is made by an Illinois correspondent of the *Rural New Yorker:*

I once brought from the State of New York a mare that had the disease badly, and in six months after her arrival here no one would suppose from her appearance that she had ever had the heaves. Whether or not it is the rosin weed, as stated by thy correspondent, E. E. T., I am not able to say, for there are large quantities of hay used here that do not contain any rosin weed. If that weed is a cure for the heaves, cannot a medicine be made from it to cure the asthma, or consumption, or both, in the human family?

SAVING SEEDS.—As the season will soon arrive for saving seeds, I thought my way might be some benefit to your readers, and I will give it to them. It is what my grandmother taught me, when a little girl, living in Massachusetts, and now that I have settled a few miles from Chicago, and have plenty of garden room, I find it very useful by keeping my seed pure, and having fruit some two or three weeks earlier than others who planted at the same time. The first that comes of each kind I let grow and ripen for seed. I save a part of a row of peas, a few hills of beans, a hill or two of corn, that I never pick any from till fully matured for seed. The first squash of each kind, melons and cucumbers, I am very particular should not be picked. By saving the first they are more likely to be pure; the bees are not so plenty as a short time afterwards. Sometimes it is quite a cross to let them be, being the first of the season, but I find in a long run I am the gainer. I hope the readers will try this; it will save a good deal of trouble in the fall in going over the garden to see if they can pick up anything for seed. How can we expect choice vegetables, unless we take extra pains about saving seed?

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TO PRESERVE FLOWERS IN FORM AND COLOR.—The *Ohio Farmer* has the following directions upon this subject:

Procure a quantity of fine sand and wash it until it is entirely free from all dirt, and the water comes from it clear. Then with a fine sieve sift from it all the particles. It should then be sifted with a coarse sieve, taking from it all the coarse particles. The sand now, being perfectly dry, is ready for use. Place it in a dish, which should correspond in depth with the length of the flower stems which are to be used for drying. The flowers when picked should be perfectly dry or exempt from rain or dew. Insert the flower stems in the sand to the base of the flowers. Then with a steady hand sprinkle the sand evenly over the flowers until they are completely imbedded. Place them in a very dry place, either near the fire or in the sun, and let them remain several days. When perfectly dry the sand may be poured off. Double flowers with stiff petals are most easily preserved, but most varieties will well repay the little trouble and care required by this simple process.

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ILLINOIS COTTON.—N. C. Meeker writes from Dalgonia, Union county, in the southern part of Illinois, to Solon Robinson, of New York, May 24th, 1863, as follows:

Please inform the Farmers' Club and the world that sixty-one bales of cotton left this place a few days ago for Providence, R. I., consigned to the owners, A. & W. Sprague. This cotton was bought under the direction of G. Reynolds, Esq., their agent, and he pronounces the quality equal to good Upland Tennessee. This lot was raised in Union and a few adjoining counties. The Messrs. Sprague, in buying this cotton, offer an inducement to the farmers to plant largely, which they have done.

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☞ The total number of sail and steam vessels on the great lakes is 1074. This includes every species of vessels, hundreds of which could be altered to gunboats and privateers in case the gov-

## EXTRACTS AND REPLIES.

### ABOUT RAISING WATER.

Will you or some correspondent of your valuable magazine, the *New England Farmer*, give me information with regard to the best means of raising water from a well 28 feet deep? It furnishes water for the kitchen and also enough for the barn, and I would like a pump that would throw water the *fastest* and *easiest* way, and one that would be cheap and durable. Advice with regard to it will be gratefully received by an old subscriber, in the August number.

*Lowell, July* 22, 1863. A SUBSCRIBER.

### WEIGHT OF SEEDS, &c., SENT BY MAIL.

We have received the following notice of an important modification of the new postage law:

The fifth subdivision of the 42d instruction under the new Post-office law is hereby amended by striking out the word *twelve* and inserting *thirty-two* before the word ounces, so that it shall read as follows: The weight of packages of seeds, cuttings, roots and scions to be franked, is limited to thirty-two ounces.

By order of the Postmaster-General,

ALEXANDER W. RANDALL,
First Assistant Postmaster-General.

*For the New England Farmer.*

## METEOROLOGICAL RECORD.

MAY.—These observations are taken for and under the direction of the Smithsonian Institution.

The average temperature of May was 59°; average midday temperature, 67°. The corresponding figures for May, 1862, were 59° and 69°. Warmest day, the 22d, averaging 77°; coldest day, the 7th, averaging 38°. Highest temperature, 90°; lowest do., 37°.

Average height of mercury in the barometer, 29.23 inches; do. for May, 1862, 29.21 inches. Highest daily average, 29.41 inches, on the 27th; lowest do., 28.74 inches, on the 2d. Range of mercury from 28.69 inches to 29.44 inches. Rain fell on ten days; snow on one day. Amount of rain and melted snow, 3.02 inches; do. of snow, 2 inches. Corresponding figures for May, 1862, rain, 1.74 inches—no snow. There were five entirely clear days, on four days the sky was entirely overcast.

A snow storm occurred on the 6th. The winds during the month were rather stronger than usual.

JUNE.—The average temperature of June was 65°; average midday temperature, 72°. The corresponding figures for June, 1862, were 62° and 70°. Warmest day, the 28th, averaging 77°; coldest day, the 17th, averaging 56°. Highest temperature, 88°; lowest do., 50°.

Average height of mercury in the barometer, 29.18 inches; do. for June, 1862, 29.18 inches. Highest daily average, 29.44 inches, on the 25th; lowest do., 28.75 inches, on the 1st. Range of mercury from 28.70 inches to 29.48 inches. Rain fell on nine days; amount of rain, 1.45 inches; thirteen rainy days and 5.14 inches of rain during June, 1862.

There were no entirely clear days; there was no day during which the sky was entirely overcast. During June, 1862, there was no clear day, but there were six entirely overcast.

Amount of rain, March, April, May and June, 11.11 inches; do. same months, 1862, 12.85 inches. The early drought of this year will be remembered. The *total* fall of rain this year and last do not differ much; while the difference between the amount in the month of June this year and last is remarkable.

The barometrical comparison above will be noted with interest.

Every crop, except hay and fruit, promises unusually well in this vicinity. The hay crop, if well secured, will fall but little below the average in intrinsic value. There will be no fruit of consequence. A. C.

*Claremont, N. H., July* 16, 1863.

*For the New England Farmer.*

## DEVELOPMENT OF RESOURCES THE PARENT OF CIVILIZATION.

Unlike the lower animals, man is a progressive being. The first bird's nest or beaver's dam was undoubtedly constructed with as much skill as any at the present day, and the faculties of mind which these creatures bring to bear in their mechanical operations are merely instinctive, and are just as much a part of themselves as any part of their physical organization. Consequently, they and their habits remain alike unchanged, age after age. Not so with man. Born into the world the most helpless and least instinctive of all God's creatures, he requires paternal care to lead him on, until his faculties become developed to a degree such as to enable him to clothe, feed and shelter himself He is then enabled to meet the trials of life, and beginning where his predecessors left off, progress upward and onward in that endless career of human improvement which makes the civilization of one age, the barbarism of the future.

The materials of which the earth is composed, with all its productions and surroundings, are one grand mass of raw materials, and out of this mass man develops those resources of which every element of human civilization is composed, and the state of society of any people is determined by the extent to which this development is carried. This mass comprises everything, from the immortal mind of man, the crowning work of infinite wisdom and power, down to the minutest particle of inert matter, which, after undergoing all the changes incident to unbounded epochs of geological transformation, may now lie near the surface of the earth, preparing to enter into some plant to help give it that nourishment which causes it to yield itself, or its fruits, to the benefit of man, or perhaps awaits the chances of being brought into some useful position, in coming time. The development of resources being the great means by which all human advancement is made, either in the acquisition of knowledge, wealth or power —in the advancement of humanity in mental or material greatness—in everything worth aspiring for by man, beyond the mere gratification of the present moment, it becomes us, in whatever sphere of life we may be placed, to use every legitimate means for this purpose, to the best possible advantage.

It is interesting to trace, step by step, the birth and growth of the arts, sciences and literature as far as the date which imperfect history gives us will permit, and to note the humble and unpretending origin, of what, at the present day, are among the most important of these. For example, take agriculture. In Eden, the tilling and dressing of the garden were the commencement of this art. Here, the resources of the vegetable kingdom were first developed by human labor, and whatever, in the degree of perfection to which this, the greatest of human arts, has now attained

we may look upon with admiration in all its magnitude, importance and usefulness, sprang from that little germ of Adam and Eve's labor in the Garden, and is the result of the slow growth of ages, each step as humble as its commencement, with the help of other arts which, in the process of their growth, have helped it in rising to its present position.

It must ever be remembered that all the arts, sciences and literature, are really but different parts of one great institution, which is civilization It is the development of the earth in its progress toward heavenly perfection, in the image of which —however faint the likeness may be—every material thing bearing the approval of God may be supposed to be; it is the development of the spiritual powers of man, the intellectual, moral and religious, which are the parts created in the image of God, in their advancement in the finite sphere toward infinite perfection; it is that which is yet to make the "desert bloom and blossom as the rose," both in the material and the mental world.

As was said, "the arts, sciences and literature are all but parts of one institution," and whatever results beneficially to one, is a benefit to all, just as a fortunate occurrence to one member of a family is beneficial to the rest. If a new power, like that of steam, is brought into requisition in such a manner that the implements of the farmer can be manufactured at less cost to the manufacturer, than they can be supplied to the farmer at a reduced price, while the manufacturer still reserves a part of the saving to himself, both being the gainers. The farmer is also enabled to renew his tools more frequently, and thus produces his crops at less cost, and supplies all classes with food at a reduced price, and the improvement in the manufacture of agricultural implements is therefore advantageous to all. It is an advantage too in the mental world, for an abundance of material resources gives its possessor a better opportunity than he otherwise could have, to acquire knowledge. Besides, the greater the extent to which the material resources of a region are developed, the better the opportunity of the scholar to learn, for in the development of those resources he finds both a field in which to labor, and tools to labor with. The astronomer who is observing the heavens in the acquisition of scientific knowledge, uses the telescope, which is the production of some of the mechanical arts, and on which has been lavished wealth, to bring it to the degree of perfection, which it now occupies.

The nations which occupy the highest position in wealth, are those which are most intelligent; and not only does the possession of wealth conduce to the acquisition of knowledge, but the possession of knowledge conduces to the acquisition of wealth. The knowledge of mathematics is indispensable to every man of business. The knowledge of the principles of mechanics to the mechanic, and of chemistry to the farmer, are of great importance, for they point out the way by which they can save a vast amount of labor in the accomplishment of certain objects, connected with their business. Thus it is through all the vast area of civilization. The arts, sciences, knowledge, wealth, power, intellect, all move hand in hand. Whatever may be of advantage to one, is of advantage to all. Together, they lift races from the obscurity of ignorance, imbecility and degradation, to all the advantages of an enlightened state of society, while the loss of any one of these is in a measure the loss of all, and the degeneracy of the race. Whoever develops mental or material resources, is a public benefactor. The inhabitants of Brobdignag considered the man who made two spires of grass grow where but one grew before, to be of greater value to mankind, than the whole race of politicians. Such a man, and also the man who can make two ideas grow where but one grew before, or discover some truth which may be of value to humanity, is certainly doing something in the great cause of human civilization. MONTHLY READER.

## FARMING IN FLORIDA.

From "Notes on Florida," by H. T. Williams, in the *Country Gentleman*, we copy the following statement of what a farmer may do in Florida:

After the settler has chosen ground for a residence, in January he can plant his early vegetables, and by March and April gather them and send them to market. After this has been done, he can plant his sugar cane, corn and sweet potatoes, or any other crop. In the fall he can plant his root crop and gather his corn and sugar cane, and at the end of the year gather his root crops. The profits from the sale of his early vegetables will be several hundred dollars, from his corn and sugar cane $600 to $1000 more, and from his root crops several hundred more. During all this time his family need not be idle, but if they live where the gherkin grows wild, they can gather and make pickles, which sell for cash in Northern markets, or they can attend to silk, and this, together with the gherkin, will make several hundred more. He can also during this time plant his fruit trees, such as the orange, &c., and also a piece of ground for arrowroot, and within five years he will be receiving a yearly income of several thousand dollars. Any order may be used, but if a person employs his time both summer and winter judiciously, I can guarantee to him a yearly income of over one thousand dollars, and in very many instances several thousand. But suffice it to say that there is no lack of articles to cultivate, in the culture of which much money can be made, and there is plenty of soil suitable for them. The whole year can be employed in the cultivation of profitable crops.

KILLING WEEDS BY LAW.—Alexander II. of Scotland, denounced that man to be a traitor "who poisons the king's lands with weeds, and introduces thereby a host of enemies." And it was said that whoever was found to have three heads of the common starwort among his corn, was fined a sheep for each stalk. In Denmark, the farmers are bound by law to destroy the corn-marigold; in France a farmer may sue his neighbor who neglects to eradicate the thistles upon his land at the proper season. In Australia a similar regulation has been imposed by legislative authority, with, it is said, the most beneficial results. In Canada, we believe, enactments have been issued against allowing thistles to ripen on the roadsides and exposed public situations, both from the Legislature and township corporations. In Wisconsin a law of the State requires overseers of highways to destroy horse sorrel, burdock and Canada thistles, in the highway.

## LETTER FROM THE FARM.

The Season—Heavy and Continuous Rains—The Crops—Lessons from the Martins—Where do they go—Amount of Rain Fall in 14 Days—Compensations.

*Concord, August* 1, 1863.

GENTLEMEN:—Haying progresses slowly. We have had but one clearly unqualified hay-day for nearly *three weeks*. The *grass* has mostly gone out of blossom, has turned dark-colored, and when cut and cured well, will not be nearly so valuable as though it had been cut earlier and in good weather. The peculiar gum which adheres to the scythe when cutting grass that is in blossom, and in dry weather, has entirely disappeared, as none of it is seen upon the scythe when mowing now. The thorough ripening of the grass, also, has probably exhausted the stems and leaves of their nutritive properties in perfecting its seed, and a considerable portion of the sugar and starch of the plants has been converted into woody fibre. It will be much less valuable, therefore, than grass cut and made into hay in good weather. But this is not all. Much of the hay got into the barn during the last three weeks, has been exposed to the dews of several nights, and the peltings of heavy rains for two or three days.

The *Wheat* crop will be unfavorably affected by these long-continued and frequent rains. Some that I have seen is almost black.

Fields of *Barley* are badly prostrated, and much of it must be ruined in consequence. The rains have been so frequent and heavy upon them, that no power of sun and wind will bring them up again.

*Indian Corn* looks well, is dark-colored, stocky, and is growing rapidly. Some of it has been beaten down and broken, but it has generally risen again and promises well.

The *Potato* fields appear finely now, and if the rain through August is not too abundant, I can see no reason why the crop should not be a good one.

### Lessons from the Martins.

I have six *Martin houses*, or boxes, about the buildings. They are inhabited by the *Purple Martin, (Hirundo purpurea.)* The color of the male is "dark bluish-purple, and glossy; wings and forked tail brownish black. *Female* and *young* bluish-brown; belly whitish." Some of the boxes were erected on poles seven or eight years ago. The birds came to them at first timidly, but upon a better acquaintance with us, their numbers have increased, so that the six houses were crowded before their late departure. "Satisfied with their reception and success, like so many contented and faithful domestics, they return year after year to the same station." It is a matter of indifference to them whether the "mansion be carved and painted, or humbled into the hospitable shell of the calabash or gourd."

From observation and notes made for nearly twenty successive years, I believe that the most of the common barn swallows and martins leave this neighborhood during the last few days of July, and strange as it may seem, a large proportion of them on the 27th day of July. Swallows may be seen later, even into September, but they are exceptions to the general rule. Let us see what happened on the 27th, this year.

During that day their houses were covered with these busy, chattering people. Numbers of them would soar into the air, separate there, and with a wide sweep and outstretched wings sail beautifully back to the homes where they had been nurtured and bred, and which they were about to leave. When assembled again, nothing could be more social than they were. They would gracefully bow, change places, and all talk together as though each one had some special message which must be immediately delivered! Thus, in this busy manner, they spent the day, giving a bright example of cheerfulness and affectionate regard for each other. *They* knew that the time for their departure was at hand—we did not—yet there were no murmurings or signs of discontent. They accepted their necessary change with a joyous confidence and trust, or faith—what can be more like a true *faith*—which would become *reasoning* creatures, in the changes which an All-wise being has ordained for them. What valuable lessons we have daily opportunity of learning from one or another of the interesting creatures which have been placed about us on The Farm!

But where were the martins on the 28th? Who was wakened by their cheerful clamor on that morning? Their houses were nearly vacant, and their familiar twitterings only occasionally heard. The unusual silence was saddening, and borrowing Tom Moore, I exclaimed,

> I feel like one who treads alone
> Some banquet-hall deserted,
> Whose lights are fled, whose garlands dead,
> And all but me departed.

One or two parent birds, with a few young ones, not yet strong enough to take the wing for a long journey, were all that were left of the gay throng of yesterday. The old birds were restless and full of solicitude. They would dart off with almost lightning speed, and then return to their tender charge, urging them to try *their* pinions, when the young would timidly rise, but soon flutter in uncertain motion, back to the friendly roof from whence they had risen. A day's practice, however, gave them new power, for at night they seemed quite courageous and strong.

Who decided how many, and what parent birds should remain to teach their young to pierce the skies and follow to the distant lands whither most of them had gone? Who? Who but He who does not even let a sparrow fall to the ground

without His knowledge? Ah, faithless and ungrateful man, that will not see the Divine Power which is exerted over all its creatures! He will lead them on their way, "give them their meat in due season," and gather their young around them again in the green fields selected as their new home!

Mr. WHITE, the amiable author of the *History of Selborne*, addresses these birds with great feeling and beauty:

"Amusive birds! say where your hid retreat,
When the frost rages, and the tempests beat?
Whence your return, by such nice instinct led,
When Spring, sweet season, lifts her blooming head?
Such baffled searches mock man's prying pride,—
The God of Nature is your secret guide."

During the twilight of the 28th, several strangers appeared, looked into the boxes, chatted with our little family in perfect harmony, and as the evening advanced, quietly settled to rest. Types of duty, confidence and love. Who is so dull as not to learn a useful lesson of the beautiful, social martins? Some morning lounger may complain,—

"Say, chattering bird, that dar'st invade
My slumbers with thy serenade;
* * * * * *
For with thy execrable scream,
Thou wak'st me from a golden dream."

For several evenings after the 27th, during twilight, several martins have appeared, twittering and looking about with an uneasy sociability, but in the following morning, their places are vacant, to see them no more until they have visited far distant and sunnier climes, These, I presume, are birds from the North, on their way South, though, it is possible. they are some of our own birds, having been to the woods, or somewhere else, for temporary purposes.

Before my letter is published, I trust we shall have clear skies. It is now *three weeks* since the rain began to fall, and during that whole time we have had but one day which was a *good hay day!* At Lowell, during 14 days out of 24, in July, rain fell amounting to 10.023 inches, or about one-quarter of the amount that usually falls during a whole year! A Lawrence correspondent of the *Boston Journal*, in the following table, shows the amount of rain that has fallen for the last seven years, in the month of July. The amount for this year is *more than double the average amount.*

One of the freaks of nature is discernable in the table, viz: no rain fell at all during the month of July, 1859, which is a great contrast from 8.750 inches for the present month:

| | | | | |
|---|---|---|---|---|
| July, 1857 | 4.880 | inches of rain fell. | | |
| " 1858 | 3.990 | " | " | " |
| " 1859 | 0.000 | " | " | " |
| " 1860 | 5.510 | " | " | " |
| " 1861 | 4.970 | " | " | " |
| " 1862 | 4.610 | " | " | " |
| " 1863 | 8.750 | " | " | " |

On reference to my *Journal*, I find that the month of July, 1858, was quite like that of July, 1863. Rain fell almost every day for about three weeks, and the weather, unlike this July weather, was quite cold. Hotel-keepers, in Boston, had fires kindled, and so did I for several evenings. Hay caps have paid for themselves in the service they have rendered during this "catching spell.' There are some *compensations*, however, in this drenching, as well as in the drought. We must summon them before us as one source of consolation, and find a still greater in the firm belief that all these atmospheric extremes are a part of the universal laws which bring us seed-time and harvest, summer and winter, and all that feeds and sustains in being.

Very truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

## NEW BOOKS.

A PRACTICAL TREATISE on the most obvious Diseases Peculiar to Horses, together with directions for their most rational Treatment; containing, also, some valuable information on the Art of Shoeing Horses. By GEORGE H. DADD, V. S. Chicago: Lord & Smith, Publishers, 1863.

The author of this work makes veterinary practice the business of life,—he is studious, observing and enthusiastic in his profession, and never tires in his endeavors to mitigate the sufferings of the horse, and secure to his owner a sound and profitable servant. In this brief work he has noticed most of the diseases which afflict the horse; and given the nature of the disease and the treatment to be observed in it. In doing this, he has used common terms that may be understood by most persons, and in so plain and direct a manner that his prescriptions may at once be made available. His long experience in his profession, and his strong attachment to it, will give this book currency wherever he is known. It is for sale by A. Williams & Co., 100 Washington Street.

CATTLE AND THEIR DISEASES, embracing their History and Breeds, crossing and breeding, and Feeding and Management; with the diseases to which they are subject, and the Remedies best adapted to their cure. To which is added a list of the medicines used in treating Cattle. By ROBERT JENNINGS, V. S. Philadelphia: John E. Potter, Publisher, 1863. For sale by A. Williams & Co., 100 Washington Street, Boston, and C. M. Saxton, Park Row, New York.

This is a well printed book of 340 pages, and is illustrated with diagrams and numerous engravings. The author has been long and favorably before the public as a Veterinary Surgeon. The work discusses the History and Breeds of Cattle; Crossing and Breeding; Feeding and Management; Diseases and their Remedies; Surgical Operations; with a list of Medicines used in treating Cattle, and the doses to be employed. This last item is one of importance to those unaccustomed to administering medicines. The book is well written, is humane in its teachings, and, upon examination, will commend itself to the reader.

GOD most times takes off the earthly garments of old people slowly, in order, no doubt, not to frighten them.

## THE BEST WAY TO USE BONES.

EDS. CO. GENT.—The "best possible way" to make bone phosphate, which J. M. A. inquires for in your paper, and which you say you and many of your readers desire to know, is as follows:

Take one ton of ground bone (the finer the better,) and ½ an ox-cart load load (¼ of a cord) of good friable soil, which will not break or cake by drying, and which is free from sods and stones, no matter how wet it may be when used. Place a layer of the soil and a layer of the bone, of about equal thickness, upon each other, (soil at the bottom) on the barn floor, or under cover in a shed or outbuilding, leaving a bushel or two of the soil to cover the heap when all the rest is put together. The heap will be three to four feet wide at the bottom, and about twice as long. In forty-eight hours it will be too hot to hold your hand in. Let it remain undisturbed until the heap begins to cool, which will be in a week or ten days. Then "throw over" the heap by "chopping it down" with a shovel and moving it "in end," thoroughly mixing the soil and bone. In a day or two it will heat again. Let it remain until it cools, or for eight or ten days; then throw it over in the same manner again. In a few days it will heat again, unless the previous fermentations have exhausted all the moisture in the soil and bone. Throw over each ten days until all the moisture is thus exhausted and it does not ferment any more; then it will be fit for use, and can be put away in old barrels, and it will be ready for use, without deterioration, for ten years.

All that is necessary to make bones operate as a manure is decomposition—*rotting*; and to produce this process the bone only needs to be ground or broken fine, and to be subjected to moisture in warm weather with some substance that will absorb or retain the gases evolved during the process. Soil furnishes the essential requisites, and nothing more is needed to make bones an excellent and durable manure.

This is not a theoretical rule, merely. I have used many tons prepared in this manner during the last twelve to fifteen years. I have tried it upon the same field, and side by side with the superphosphates of different manufacturers, and *always* saw the best and most permanent effects from the same weight of bone prepared in this manner, a ton of which costs, exclusive of the labor and soil, about half as much as a ton of superphosphate.

I want to say further, that, before treating bones in this manner, I tried several methods recommended by the farming newspapers without much satisfaction. I mixed half a ton of ground bones with twenty bushels of leached ashes, and half a ton with twelve bushels of unleached ashes, and the workmen could not open their eyes in the barn next morning until the doors and windows had been open long enough to let the *ammonia* out! As soon as I saw the effect of this process, I sent for a load or two of spent tan to mix with it; and thus saved a part of the ammonia, but the effect of this compost was not very striking.

I next mixed a ton of bone with wet yellow sand—a material about half-way between sharp sand and loam. This fermented finely, but it smelt so bad, and was so nasty, that I had to pay an exorbitant price to get it applied to the land. It had a good effect however.

I then mixed a ton of bone with a ton of ground plaster. I found the plaster was wholly incapable of keeping down the carrion smell, or of absorbing the manure given out in the form of gases. Water had to be added to this heap to support the fermentation, and the plaster dried hard and in lumps, and did not seem to participate in the fermentive process as the soil does. This did not have so good an effect as the bone and sand; and none of these compounds was equal to that prepared with soil.

I will also add that the newest bone is the best. The old dry bones which are collected after exposure to the weather for years, have lost much of their virtue, and will not heat so soon nor so much as those which have not lost their gelatine in that manner. GEORGE HASKELL.

—*Country Gentleman.*

REMARKS.—We like Mr. HASKELL'S plan of reducing bones, as far as he has developed it, but the really difficult part of the matter, he says nothing about,—and that is, *how to grind the bones.* There are few things of this nature so difficult to accomplish as this. Granite, blue pebble stones from the beach, nay, ten-penny nails, are not half so hard to reduce to powder as a bone! We have never yet known a mill that will grind a bone in its crude condition. Even the manufacturers of superphosphate are obliged to expel all the animal or fatty matter from the bones before they can grind them. Then the bones are ground, and the matter that was expelled is returned to them in a liquid form.

Every farmer will feel obliged to Mr. HASKELL for making known his process of reducing bones, but will look to him with interest for information how to *break* or *grind* them so that fermentation in them may be secured.

We can *purchase* what is called "ground bone,"—but which is, in fact, *broken* bone. That, however, is not what is wanted. We all desire to know how to reduce the bones *which accumulate upon the farm*, so that we can use them annually upon our crops. Will Mr. HASKELL be kind enough to inform us how we can accomplish this?

*For the New England Farmer.*

## SHALL I BUY A FARM?

MR. EDITOR:—I am out of business and out of health, and come to you for advice. The whole dream of my life has been to own a farm, and now, after an experience of fifteen years in a store—and most of that time in a poor state of health—I find myself with only about $1500—in ready money—no business, and in a quandary as to what I shall do. As an offset to some of my troubles, I have one of the best wives in the world, admirably calculated for a farm, both by nature and inclination, (having been brought up on a farm,) and four good children, the eldest a boy of thirteen, the next a girl of nine, the other two, boys younger.

I have no practical knowledge of farming, but have for years been a constant student of agricultural works—have full bound sets of the *N. E. Farm-*

*er, Albany Cultivator*, &c., &c., and with the idea, that as soon as I possessed money enough, I would buy a farm, I have made these works my principal reading. Now what I fear is, that, if I buy a farm and run in debt for a greater part of it, as I should be obliged to with my present means, I should not be able to get a living. What do you think? The first year would undoubtedly be hard for me.

I have the reputation of being a practical, business man, and a thorough accountant, but whether that would be any help to me in my new vocation, I know not,—but with the idea impressed on my mind that if we had a pleasant farm, we should be a happier, healthier, and better family, I have written to you in hopes you would enlighten me.

Yours truly, QUANDARY.

*Malden, July 21st*, 1863.

REMARKS.—"Shall I buy a farm?" No—you cannot with much more propriety than we could enter your room as an accountant, and expect to succeed. You must feel your way, and *not risk* your capital. Let that be at interest, or most of it. Hire a place of half a dozen acres in a good neighborhood, and try farming a year or two in that way, and occasionally work a week or two with some intelligent, practical farmer who will converse with you upon agricultural matters. With such a wife as you describe—to say nothing of the children—you are a rich man. Many a capitalist would count out and lay down thousands, for such a gift. You will do well enough. But do not be in a hurry about farming. Please follow the suggestion offered, and by-and-by write us again.

*For the New England Farmer.*

## FARMERS versus MECHANICS.

MR. EDITOR:—I occasionally read the advice for farmers to have a shop, with a set of tools sufficient for ordinary carpenter's work. The advice is good, but farmers, at this age, ought to go further, and study into the machinist's trade some, for so many machines are now being made to perform farm work, it is getting to be absolutely necessary to know how to use them. Often good machines are condemned, when the fault is a want of knowledge how to use them.

I know a man that bought a mowing machine and cut a large lot of hay with it, and liked it. At last he broke the cutter-bar, got it repaired, broke it again, again put it in order and asked a friend to try it who had some mechanical gumption, but before he got the "hang of it," it broke again! What was the difficulty? Nothing, only the journal next the crank had never been oiled, being out of sight, under the seat! The result was, that the journal rapidly wore into an elliptical form, and smashed things up, as has been described. Now the man does not like that kind of mower!

The machinist will fit up a mower nicely—the shafting running free when cool—the farmer takes it into the field, where it goes well a little while, then the team begins to sweat, and pull hard, and the machine is pronounced a hard-going thing, while all it wants, perhaps, to make it go easy, is the slight slacking of the cap bolts in some place, or a few drops of oil.

It is astonishing, what a friction-gripe a close-fitting bearing will take when it is inclined to heat. Machines with wood frames, that lay at rest like those for farmers, shrink and spring, throwing the bearings out of line, or some nut gets started by the jar when at work, and gets things out of place. Farmers should learn quickly to detect anything of this kind, and know how to fix it. Most farmers have had no "rolling stock," but common wheels, which have a better chance to "wriggle" about than shafts in rigid boxes. But nice carriages are fitted so snug sometimes as to heat, making cruel work for the horses. Four ladies were stopped in their carriage in front of my shop, making "signals of distress." I went out, and they wanted me to see why the hind wheel would not go around? When I assured them that all was right, excepting a trifle too much heat in the axle for want of oil, it was hard to make them believe it. No appliance would start the wheel, but what would tear the work to pieces, until the heat left.

All ought to see the importance of attention to the condition of journal-boxes, especially where the poor dumb beast is the motive power that keeps them in motion. The South Americans transport goods across the Pampas in great clumsy carts, all made of wood and raw hide, drawn by six yoke of oxen, and they never grease the axles, going in trains of twelve teams to protect each other from Indians. These axles can be heard for miles. That must be "music and drawing," but beef is cheap there! The Canadians come into St. Paul, Minnesota, in the same way, but have smaller teams; they can be heard coming long before they can be seen. We are surprised that they can be so stupid, making such a waste of power and infernal din. Let us see to it, that we are not stupid in any degree in the same direction. A little fat of dead animals will save a great amount of fat in live ones. In oiling, never use whale oil, such as is often burnt in the house; it is worse than nothing in a little time. I use the best of sperm oil; there may be other good lubricators, but none are good that gum.

Now a few words on the strength of metals and power machines. These should be used more by farmers, for most all good land is more or less infested with rocks or stumps. Machines to remove these must have an immense concentrative power; if they have this, and are fastened to an unknown resistance by ignorant hands, their own power will be used for their own destruction, the operator not knowing how trying it is to metals to have the least jar or concussion, when under great tension. Besides, it never does any good, when drawing rocks or stumps, to jump or spring; it will only break something. The blacksmith sets his cold chisel into a large bar of iron, and marks it all around: this produces a great tension in the uncut portion; a sudden jar with a blow of his hammer will break it, showing the importance of a steady draft when there is a hard pull. I have seen thrashing kind of men breaking things to pieces, who had not sense enough to know that rocks and stumps cannot be jumped out. There must be time for the vacuum being formed below, to fill with air. Often, when they are first starting, one minute's waiting will often do more than the same time pulling, for when we consider that there is fifteen tons of atmospheric pressure on a

square foot, we shall see the importance of getting the air in before we can get the stump or rock out.

I saw in the *Cultivator*, some time ago, some observations of a correspondent who had been seeing things on the farms in Connecticut. Among other things was a machine for pulling rocks. By his description it was Bolles' patent. He went on to say how good it was, but farmers could not get them, because the exorbitant price of $225 was charged for them, when they could be made for $60, and leave a good margin for profit. A man so entirely ignorant of what he was writing, should not have shown it, and make farmers think that he knew, and give the impression that mechanics were asking too much for their work. The fact is, if that man should take three times the amount he named, to build one of those machines, he would have "nary a red" or a nickel left when it was done. No; we farmers get our machines cheap, thanks to the skill of our mechanics, who arrange their shops with such ingenious labor-saving tools, that they can duplicate our implements at a wonderful rate. Add to this, the competition, and we have nothing to complain of. Then, again, farmers ought to know how to calculate the value of labor-saving machines, and designate between the good and worthless. Some farmers plod along and will not use what they call "new-fangled notions," when there are implements that save their cost every year for several years. Some men use hand tools, and think they are economical, when, if they had thrown them away long before, it would have shown that they understood economy. I mean those tools that lose their capacity, and which, after a certain amount of wear, should be put aside. It is not economy for a strong man to use a shovel after two inches has been worn off, or any other tool that has lost twenty-five per cent. of its original capacity. CALEB BATES.

*Kingston, July*, 1863.

## WOMEN FARMERS.

A few weeks since we copied an article written by Miss Della Roberts, of Pekin, Niagara Co., N. Y., in reply to objections of a correspondent of the *Rural New Yorker* against women engaging in the out-door labor of the farm. A late number of the same journal contains an account, by Mr. Henry Wright, of a visit to the farm of Marvin Roberts, father of Della, from which we copy the following statement of the large amount of labor performed by a family of girls:

From the middle of April to this time (two months) the following work has been done:—One hundred acres of oats have been put in, which now look very promising; thirty-five acres of flax, and this, at present, bids fair to give a good yield. (There is an establishment for *cottonizing* flax in successful operation at Lockport, ten miles east.) Ten acres of corn; ten acres of spring wheat; three acres of potatoes; four of parsnips and carrots; six of beans; and all the ploughing, harrowing, sowing, rolling, planting and cultivating necessary to get these crops in and up to their present state, has been done since the middle of April.

At least *one-half* of all this labor of getting in these 170 acres of crops has been done by the five young daughters of Mr. and Mrs. Roberts, with the help of two hired girls. The eldest of these seven girls is twenty-one, and the youngest twelve years. Meantime, the house-work has been done, mainly, by these girls by turns. They consider it a privilege to work out-doors at ploughing, and harrowing, and putting in, and tending the crops, rather than work in the house. These crops are to be tended and harvested, together with forty acres of hay; and these girls are expected to do at least one-half of the work.

Besides all this, 175 acres are to be ploughed this fall, for next year's crops, instead of ploughing in the spring, as they have formerly done; the largest share of this to be done by these young girls. It is a matter of choice in these *Yankee* girls—for Yankee girls they are, by parentage—thus to work on the farm, rather than in factories or at sewing.

## SUNSET AFTER A SHOWER.

Over the hill tops, fold upon fold,
Like blood-stained banners within the sky,
Braided with crimson, and fringed with gold,
In a sea of amber the spent clouds lie.

Down in the valley the slumb'rous trees
Droop, heavily jeweled with fallen rain;
And a spicy scented, tremulous breeze
In ripples crosses the bending grain.

The winding river like silver gleams
Through dreamy vistas that melt and fade;
And the sunlight, falling in slanting beams,
Strikes deep in the heart of the forest's shade.

On distant uplands the lonely pine
Is ringed with purple and bound with fire;
The stones in the church-yard glance and shine;
And the weather-vane is a gilded wire.

The tapering cedar, like a spear,
Shoots out of the cliff, where stands revealed
The rocky ledge; and the herd appear
Like spots of color within the field.

And the braided banners of cloud are seen
To fiercer burn, as with sudden shame;
While the vale below and the hills between
Are drowned in a yellow mist of flame.

And the farmer's boy, all agiare with light,
Looks over the cliff where the cedars grow,
And shades with his hand his dazzled sight,
And calls to his comrades down below.

Then the brazen woodlands echo and ring,
And the earth and sky seem to shout with him;
A pearly arch is the hawk's fleet wing;
And the sweltering landscape seems to swim.

On yonder hill-side a cottage shines—
The window westward flashes and glows—
It nestles amid its shelter vines
Of glistening ivy like a rose.

And there in the porch two lovers woo—
Her slender figure his arms enfold;
While two doves in the dove-cote kiss and coo,
And ruffle their necks of green and gold.

*Harper for August.*

☞ During the past year the government has lost 11,000 horses by battle and disease. The average number daily received at the veterinary hospitals at Washington alone was over 100, of which not more than one-half are returned for duty. It was claimed that a large proportion of this mortality might be saved by the employment of regularly trained veterinary surgeons in the army.

STEAM was, till the other day, the devil that we dreaded. Every pot made by human potter or brazier had a hole in its cover to let off the enemy. But the Marquis of Worcester, Watt and Fulton, bethought themselves that where was power was not devil, but God; that it must be availed of, and not by any means let off and wasted.

## STONES.

When lands are to be laid to grass, great care should be had to free the surface of all incumbrances, and render it as smooth and level as possible, in order to facilitate the operation of the scythe or mowing machine. On most lands, there are generally many stones, which, although of small size, are serious impediments to the mower. These should be picked either before or after sowing the grass seed, and *not* piled on the field but taken off by the cart or drag. An implement called a "stone picker" has been invented, which is said to work admirably, and to be capable of saving three-fourths of the expense of picking by hand. In a neighborhood of very stony farms it would be well to look after such a machine.

Where the surface of a field is covered with stones, it is impossible to get all the grass, and when the bottom is thick, a considerable portion of the crop will be beneath the range of the scythe. On fields that have been some time laid down, one inch of the bottom is often worth two of the top; consequently a "close cut" is very important. It is poor policy to pile stones on the field, either in small or large heaps. They are not got rid of in this way. The most economical method is to pick them into a cart and convey them directly to the lines where they are to be constructed into fence, or used for some other purpose.

Now that the mowing machine has come into so general use, it is more important than ever that the surface of mowing lands should be level and free from stones.

Many people lay down lands in August and September,—the practice is a good one,—and when the operation is going on in these two months, let it be remembered, that it is *true* economy to leave the field smooth and clear of obstructions either to mowing machine or scythe.

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THE AGRICULTURAL COLLEGE LAND GRANTS.—The certificates for land to be issued to those States which have accepted the agricultural college grant as being signed at the general land office in Washington and in a few days the first issue will be made to the State off Rhode Island, which was the first to avail itself of the grant.

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## EXTRACTS AND REPLIES.

### FLEAS ON A DOG.

Can you tell me of any method to kill fleas on a dog? I have a valuable setter dog whose hair is very long. I have tried whiskey, snuff, castile soap and tobacco steeped in water. All of these they fat on. If you can inform me through your valuable paper you will much oblige a regular subscriber. I. H. W.

REMARKS.—Procure "*Dodge's Infallible Vermin Exterminator*," and you will succeed without hurting the dog. It is sold at 831 Broadway, New York, but whether in Boston or not, we do not know.

## CITY HAYMAKERS.

Such was the surrounding of one city churchyard that I saw last summer, on a Volunteering Saturday evening towards eight of the clock, when with astonishment I beheld an old man and old woman in it making hay. Yes, of all occupations in this world, making hay! It was a very confined patch of churchyard lying between Grace church Street and the Tower, capable of yielding say, an apronful of hay. By what means the old man and woman had got into it with an almost toothless, haymaking rake, I could not fathom. No open window was within view; no window at all was within view sufficiently near the ground to have enabled their old legs to descend from it; the rusty churchyard gate was locked, the mouldy church was locked. Gravely among the graves they made hay, all alone by themselves. They looked like Time and his wife. There was but the one rake between them, and they had hold of it in a pastorally loving manner, and there was hay on the old woman's black bonnet, as if the old man had recently been playful. The old man was quite an obsolete old man, in knee-breeches and coarse gray stockings, and the old woman wore mittens like unto his stockings in texture and in color. They took no heed of me as I looked on, unable to account for them. The old woman was much too bright for a pew-opener, the old man too meek for a beadle. On an old tombstone in the foreground between me and them were two cherubims; but for those celestial embellishments being represented as having no possible use for knee-breeches, stockings, or mittens, I should have compared them with the haymakers, and sought a likeness. I coughed and awoke the echoes; but the haymakers never looked at me. They used the rake with a measured action, drawing the scanty crop towards them; and so I was fain to leave them under three yards and a half of darkening sky, gravely making hay among the graves, all alone by themselves. Perhaps they were spectres, and I wanted a medium?—*Dickens' All the Year Round.*

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TOMATO CORN CAKES—A SPANISH RECIPE.—Take a dozen ears of green corn; split the rows of kernels lengthwise with a knife, then shave off and mash with a rolling pin; or grate off the kernels fine; scald a dozen medium-sized tomatoes and remove the skins; beat three eggs well, and mix the whole with a pint of milk, and flour enough to make a batter; add salt, pepper and allspice to the taste; fry on a griddle in the same manner as buckwheat cakes, avoiding excess of grease.

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☞Mr. Bailey Sargent, seventy-seven years old, of Orford, N. H., with his own hands, sowed and harrowed this spring, fifty-three bushels of oats on ten acres of land, which he also ploughed without assistance, beside doing much other out-door farming work. "Young America" must look to its laurels when veterans are possessed of such untiring endurance.

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☞A railway from the Canadian border to the Pacific British possessions, is so seriously contemplated by the English government, that they have resolved to grant a yearly subsidy of £12,500, and also a large tract of land, to construct a road across the continent.

*For the New England Farmer.*

## WINTER WHEAT.

MR. EDITOR:—In my late ramble through Massachusetts, New Hampshire and Vermont, I saw plenty of winter rye fields, and scarcely a single field of winter wheat. It only surprises me to find such universal neglect of the "main staff of life." Where rye grows, wheat will grow, and give as many or more bushels per acre, and ripen at the same time. Wheat will grow and fill on *rich, strong* land when rye often fails.

It is to be hoped the farmers may get through with their haying so that now and then a patch may be ploughed up to sow a little wheat upon. Grass sward ploughed in with its decaying roots and stubble is as good as a dressing of manure, and much better for the crops.

First, Soak seed in salt pickle, half a peck to four pails of water. Rake it in ashes. Second, sow seven to eight pecks to the acre. Third, If possible, get it in three inches deep to prevent winter killing. Fourth, On cold clayey land sow last week in August; on warm land, first week in September. Fifth, Roll if possible. Sixth, Sloping lands are best, even for all grains. Seventh, If chess grass appears heading out with the wheat, go through and pull it up.

The above rules, strictly followed, (and nothing new from the pen of the writer) will insure a good crop five years out of six.

The weevil has been the great obstacle to the farmer. Can we so readily account for it as by the probability of its eggs being on the berry and hatching out in the spring? It does not appear when pickle and ashes are applied that weevil have troubled the grain. It very materially nourishes and quickens the growth. HENRY POOR.

*Brooklyn, Long Island, Aug*, 1863.

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THE SCHOOL-HOUSE.—It is the duty of teachers, as well as parents and school committees, to see that the circumstances under which children study are such as shall leave a happy impression upon their minds; for whatever is brought under the frequent observation of the young must have its influence upon their susceptible natures for good or evil. Shabby school-houses induce slovenly habits. Ill-constructed benches may not only distort the body, but by reflex influence, the mind as well. Conditions like these seldom fail to disgust the learner with his school, and neutralize the best efforts of his teachers. On the other hand, neat, comfortable places for study may help to awaken the association enchaining the mind and the heart to learning and virtuous instruction with link of gold brightening forever.

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☞ The Coal Company reports of coal received by the various roads for the week just ended, show that the supply for the season now reaches about four and a quarter millions of tons, some eleven hundred or twelve hundred thousand tons in excess of the production to the same date last year from the same source of supply.

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IT often appears in a family as if all the qualities of the progenitors were potted in several jars —some ruling quality in each son or daughter of the house—and sometimes the unmixed temperament, the rank, unmitigated elixir, the family vice, is drawn off in a separate individual, and the others are proportionately relieved.

## A HORSE WITH WARTS.

Warts are not uncommon upon the horse, and the inquiry is often made, "What will cure or exterminate them?" In MAYHEW'S splendid work on the horse, we find something to the point. He says there are *three* sorts of warts. The first is of a cartilaginous nature, and is contained in a distinct sac or shell. Upon the sac being divided, the substance drops out, leaving a perfect clean cavity which soon disappears.

The second sort is also cartilaginous, but, unlike the first, is *not* contained within a cuticular sac. It adheres firmly to the skin, and is apt to grow large; sometime it becomes of enormous bulk. The crown is rough and unsightly; the body is vascular, and the growth, from its magnitude and uneven texture, is apt to be injured, when it never heals. This species of wart is often to be found upon the human hand.

The *third* variety is hardly a true wart. It consists of a cuticular case, including a soft granular substance.

To cure the first kind, when the warts are found to be inclosed in a defined cuticular shell, the quickest and the more humane practice is to take a sharp-pointed knife, and impale them, or run the blade through each in succession. The edge should be away from the skin, and the knife being withdrawn with an upward cutting motion, the sac and substance are both sundered. After this touch the part occasionally with chloride of zinc, one grain to an ounce of water.

When the growth proves of the fixed cartilaginous kind no time should be lost in its removal. The quickest plan—and not, perhaps, the most painful method—of doing this is by means of the knife. The excrescence should be thoroughly excised, being sundered at the base. Some bleeding will follow. This may readily be commanded by having at hand a saucepan of water boiling over a small fire. Into this plunge a small piece of iron, and when heated apply it to the bleeding surface, which will stop the flow of blood, and not destroy the living flesh.

Some persons object to the knife. The next best thing is the use of caustic. Strong *acetic acid* is good; the next in strength is *butter of antimony*; then *nitrate of silver*, or *lunar caustic*, and then *sulphuric acid*, made into a paste with *powdered sulphur*, and applied by means of a flat piece of wood.

In all cases of this kind, and especially where the animal is a valuable one, it is prudent to call

in the aid of some person whose business it is to cure.

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*For the New England Farmer.*

## HORTICULTURAL NOTES.

Plan Marked Out—Early Fruits—The Strawberry—Different Varieties do best on Different Soils—Variety of Opinions—Hovey's Seedling—Brighton Pine—Jenny Lind—Boston Pine—Triomphe de Gand—Cutter's Seedling—La Constante—Wilson—and Eleven Other Kinds—Opinion as to the best of the Number.

MR. EDITOR:—With your leave I will talk occasionally with your readers in a familiar way upon familiar topics. It is possible I may not succeed in advancing any new ideas, but may hope at least to impress some well known facts more fully upon the minds of some. The old adage of "line upon line and precept upon precept," is just as true to-day as ever, and needs to be still practised.

As week after week passes along, I shall have something to say upon a variety of subjects—fruits, flowers and vegetables, old and well known varieties, as well as the newer ones. The kinds that are the most profitable, the manner of growing each to the best advantage, and many other things of like nature. It is often very pleasant, and profitable, too, to sit down and talk of strawberries, pears, flowers, or other things, with those who have some knowledge of the subject; so I hope it may not be unpleasant or unprofitable for your readers to listen to my perhaps rather free and easy talks about such things; not that I presume to be able to teach them what they should do, but because from my connection with various societies, and from the nature of my business, which often takes me among the market gardeners and farmers of this vicinity, I have frequent opportunities for observation. I shall take up such things as may be suggested by the weekly exhibitions of the Massachusstts Horticultural Society and by my own experience. We are constantly learning, and especially is this true of those who till the soil, for almost every day brings something new; new kinds of fruit and vegetables, new varieties of flowers, and also new difficulties to contend with in cultivating these things, new diseases, new insects, &c., so that a whole lifetime will not enable us to completely understand and master all the difficulties that lie in our way.

Among our early fruits, and one that seems to demand our attention is the strawberry. I consider the strawberry crop one of the most profitable of all crops in the immediate vicinity of a good market, and perhaps a paying crop, even when the fruit must be transported some considerable distance to market. The average price is about twenty cents a box through the season, and where the fruit is of very superior quality a larger price is obtained. There is great difference of opinion among even good strawberry growers, as to the best varieties to plant for profit, the preparation of the soil, the kind and quantity of manure to be used, how they shall be cultivated, whether in hills or rows, and how far apart the rows be set, and as to many other things to which we may refer. I am aware of the difficulty of making everybody believe as I believe, as to the best sorts to cultivate, nor is it best they should, for it is a well known fact that a variety may do well in one soil and location, and not be worthy of cultivation in another. I shall show this to be the case before I leave the subject. There are several varieties prominently before the public, some of which have stood the test of time. The Hovey's Seedling is one of these, having been brought into notice more than twenty years ago, and yet it is still unsurpassed as a market fruit. It is so familiar to all that I will not take time to describe it. All things considered, it is the most profitable and valuable variety known to us. Its size, productiveness and good quality, render it very desirable. I am aware that objections may be brought against it. It needs and must be set near some other variety, that its blooms may be impregnated by the pollen of such neighboring beds, or you will fail to obtain fruit, but when properly cultivated it is very productive, its color is good, hulls easily, is good flavored, bears transportation well, can be picked rapidly—I have known a young man to pick and "top off" a hundred boxes in a day of this variety, all ready for market. It has all the good properties of a first-rate market fruit, except the defect already described.

We sometimes hear people condemn, or speak disparagingly, of the Hovey, when the fact is, their beds are filled with spurious plants, either chance seedlings or other poor sorts that have run in and been allowed to spread and root out the true plants. Few cultivators can say that they have entire beds of the true "Simon pure" Hovey's Seedling. The fruit of this variety will bring from five to ten cents more per box than most other kinds carried to Boston market. This sort is grown quite extensively and to great perfection by the enterprising farmers of Belmont.

The Brighton Pine is another favorite variety in some localities. It was raised by Mr. Scott, of Brighton. It is lighter colored and smaller than the Hovey, profuse bloomer, but in some localities many of these blooms prove false. It is a fruit of good quality, good size, makes runners freely and covers the ground well, is hardy, and often produces very good crops. It is planted considerably as a fertilizer for the Hovey's Seedling, say one row of Brighton Pine, and then eight or even ten, of Hovey's Seedling. One farmer in Newton has raised more than ten thousand boxes of this variety this season, and speaks well of it. It has not done well with me.

The Jenny Lind is a variety that was raised by Mr. Isaac Fay, of Cambridge, and is a fine, early fruit. It is nearly as early as the Early Virginia, much larger, and for all purposes a better variety. It is held in high esteem in some localities, while in others within a mile or two, it has been discarded. The plant is a vigorous grower, making numerous runners, completely covering the ground. Fruit not high flavored, but good. Its earliness is its chief recommendation. Not a good bearer. Well worthy of cultivation.

The Boston Pine is a large berry of high flavor. It is of the same origin as Hovey's Seedling. Color red, but becomes pale, and consequently not so saleable,—a vigorous grower, and valuable as a fertilizer for its more fortunate sister, the Hovey's Seedling. Should be grown for home use.

Triomphe de Gand. What shall I say of that? It is of foreign origin, fruit large size, coxcomb shape—looking sometimes very ugly; it is difficult to hull, especially when the fruit is large and

ill-shapen; quality of fruit from good to indifferent, color light red, great grower, making many runners, and on this account said to be a good variety for nurserymen to raise; good bearer. It is a favorite with some. Should say worthy of a further trial.

The Cutter's Seedling is a variety introduced to public notice by Mr. B. F. Cutter, of Pelham, N. H. It is a great grower and bearer, fruit of medium size, deficient in flavor, hardy. Many think it worthy of extensive cultivation, but I cannot understand why, unless the answer given by one who grows it extensively furnishes the explanation. I asked him why he grew the Cutter? He said, "It is hardy, bears well, and the public don't know the difference and will buy it, and that is all I care for." To those who take this view of the matter, no doubt the Cutter would be valuable but not so for home use. I know there are those who will differ with me in regard to this strawberry, but they can take my opinion for what is worth. The Bunce Seedling proves to be the Cutter's Seedling.

The La Constante is a foreign variety of very large size, fine form and color, shaped somewhat like the Hovey, but more perfectly round, of good quality, and if it will flourish in different soils and localities will be a very valuable kind. I think it will certainly prove so for garden culture, but I fear it will never stand the rougher cultivation of the field. A further trial will determine this.

The following are among the many sorts that are sometimes met with, none of which I can recommend for general cultivation. All of them, doubtless, have their friends, but they have not stood the test; occasionally, it is true, you will find a man who has a morbid appetite for sharp acids, that will eat the Wilson, and grow it, thinking he has got a good strawberry. I certainly hope that all such may soon be able to overcome such a depraved taste, and learn more fully to appreciate the really fine kinds of strawberries that may be grown so easily. With the Wilson I shall class—not because too acid, but for various reasons—Scott's Seedling, Cremont's Perpetual, Jenny's Seedling, Walker's Seedling, Hooker, Lady of the Lake, Great Austin Shaker Seedling, Peabody, Fillmore, and a host of others that time will not allow me to enumerate.

Is it not strange, after all the efforts that have been made for years to procure new and fine varieties of strawberries, that the Hovey's Seedling should still be acknowledged by most strawberry-growers in this vicinity as the very best variety for general cultivation? I can honestly say, that after having grown most of the sorts I have named above, and seen all of them on exhibition at the rooms of the Massachusetts Horticultural Society, or growing on the farms in the neighborhood, I am forced to the conclusion that the opinion above expressed is correct.

*Newton Centre.* JAMES F. C. HYDE.

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SHED-ROOM FOR A SHEEP.—An Ohio correspondent of the *Rural New-Yorker* states, as a general rule, that, including room for racks, sheep require from eight to ten square feet of space per head, according to the size of the animals.

*For the New England Farmer.*

## COMMENTS ON THE CHERRY.

The present season has been very favorable for the cherry, and I am impressed with the belief that it can be made more profitable in the New England States than the peach. Like the latter, the trees are not troubled with the borer or the yellows; they are long-lived, need but little care, and will flourish well in sward land, especially after having attained a few years of age. With their free and handsome growth, they are even desirable for the lawn. In fact, they seem to do better in grass, or a light, than in a rich arable soil, as in the latter the growth is generally too rapid, which renders them less likely to bear, and more subject to the influence of frost, splitting, &c. They ought to make only a moderate growth every year.

It is fortunate for the farmer that various trees are adopted to various soils; for by a proper knowledge of them and judgment in giving them position, the true economy of the soil is attained. It is well known that a rich soil is not necessary for the growth of all trees; some, as the Pines, the Larch, the Abele, the Oak, most of the forest trees, and others, having the wonderful power of drawing the elements of their organization more freely from the air (carbonic acid gas) or forcing a poor and reluctant soil to yield up its mineral and other food more freely to them than to other trees. One tree will flourish well in a spot where another could hardly be made to live. Philosophy has yet to account for this.

The cherry is one of the most palatable and healthy of fruits, equally so with the peach, and can be eaten in great quantity almost with impunity; and coming earliest in the season, seems to be the most welcome.

Of this fruit horticulturists have not that critical and discriminating knowledge which they have of pears, apples, and some other fruits, perhaps for a good reason, that there is not among the varieties those distinct characteristics which mark many other fruits. The most prominent points in classification are color, tenderness, and season of ripening. A first rate cherry should be large, tender, juicy, sweet, a good bearer and a good grower. A tree which spreads is more desirable than one which grows erect, as its fruit is less exposed to the birds; besides it is far more easy to enter to gather its fruit. Slender, withey branches is another rather important matter, as they are less liable to be broken in picking, and can be bent in or down with less injury than those which are stiff or brittle. The Elton is such, with a spreading top, besides being excellent in fruit. The Black Tartarean is the reverse as to habit. But, of course, every variety has some fault, and we must select those with the least.

As to the best varieties for domestic use, it is well to begin with some early kind, and follow with the later and still later, till the fruiting period shall extend nearly or quite into August. The Sweet Montmorency and Florence are said to be excellent late varieties; also the "Hovey," which is large and promising. But among so many known good sorts of English cherries, it is impossible to select what would be regarded by all as the best consecutive kinds. As a general rule, the tender red or dark varieties are preferable, as

they seem less inclined to rot than the light. When late kinds are dark and have spreading heads, the crop is more likely to be saved from the birds, as the latter are not so numerous as in the last week in June; and if they were, the spreading tree would tend to keep the fruit from exposure.

Among the best varieties are the May Duke, Belle de Choisy, Coe's Transparent, Elton, Black Tartarean, Black Eagle and Downer's Late. The Black Tartarean is a standard of excellence in fruit, but the tree is rather tender, liable to burst its bark and to become short-lived. A cherry which sold a few years ago for a high price, called "*Walsh's Seedling*," seems to be identical with the Tartarean, having all its habits, virtues and faults. This "seedling," if its secret history could be discovered, would probably be found to be a grafted fruit! The Napoleon Bigarreau, which has borne with me the past two years, is a very large and handsome white cherry (so termed), with a blush or crimson cheek, but crisp, and only of fair quality. It is very showy, has a small pit and thick pulp, is excellent for the market, and the tree is a free and healthy grower; but its fruit hangs in clusters, and in damp weather is quite liable to rot.

We need more late cherries. Nothing can be seen in market in the middle of July but the Black Mazzard; yet Downing notes the "*Bigarreau Tardiffe de Hildersheim*," which, he says, "ripens here in August, and according to Thompson is the latest sweet cherry known." Also the Sweet Montmorency, which is nearly as late. Both of these fruits are in Messrs. Hovey's Catalogue, yet they are rarely if ever seen, even on the horticultural tables.

D. W. LOTHROP.

*West Medford, July*, 1863.

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*For the New England Farmer.*

## LITTLE THINGS,

### OR A WALK IN MY GARDEN.

While walking up and down the garden one early twilight last week, as I am wont to do, my attention was arrested by a pretty row of cabbages, and I was led to inquire whether the ordinary art of our households has been put sufficiently to the test in serving up this vegetable in as many ways as it is capable. It is true that Yankees will never learn to eat *sour krout*. This belongs to our Dutch population, but I was further led to this thought while translating a German hymn the other day in which, among other things prayed for, was a plenty of *Cabbage*. Now if there be anything good in cabbage, why should we not find it out in some form or other? Cannot some of our readers give us a variety of dishes from this article?

The whole family of the *Brassica* is capable of great development. See what splendid varieties of the cabbage and turnip have been brought into use by careful cultivation, to say nothing of the cauliflower, the most delicious of them all. Perhaps some, who, like myself, practice gardening on a small scale, would like to know how to cultivate this esculent. For twenty-five years I have not failed but once to raise a supply for my family. There are two methods I have practiced for starting them, one, to plant them in a hill, and the other to start them in a rich spot, or in a hot bed, and then transplant. Each method has its advantages. When I transplant, which I am as likely to do on a summer day as on any other, I pour a little water round the plant and immediately lay over it a leaf of burdock, rhubarb or grape, and let it wilt down over the leaf and remain there two or three days. I then remove them, hoe them and place a platform of newspaper around the plant, which may be rapidly done by tearing up pieces eight inches square, tearing a slit in one side to the centre and placing a little earth on the edges. This will keep off the cutworms. If a plant turns to a lead color, pull it up and supply its place with another. In this way I never fail of cabbages, if I don't let the cows get in and eat them up! To be sure, there is not much poetry about a cabbage, but it answers an excellent purpose for prosy people who are fond of the substantials of life.

There is another article with about as little poetry in it as the cabbage, but I have been somewhat perplexed as to the best method of training the vines. At last I hit upon the following method of

### Training the Tomato.

Knock a flour barrel to pieces, take one of the hoops and two of the staves, sharpen one end of them, and nail the other ends to the opposite sides of the hoop, set it over the plant and drive it into the ground, the vines will hang over the edge of the hoop free from the ground. Set the staves in the next hill at right angles with those in the first, and let the hoops just come together and tie them with a string in such a way as to support each other. Thus, at a trifling expense of time and money, you may effectually train all your tomatoes. These may be *little* matters, but they will insure great cabbages and tomatoes.

Yours, little enough, N. T. T.

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## THE WHEAT CROP IN SOUTHERN ILLINOIS.

In their dreams of farming on the rich soil of the Mississippi Valley, few New England farmers probably think of anything less than twenty bushels of wheat per acre, and from that up to forty, and even higher. In this, as in many other things, 'tis distance lends enchantment to the view. In conversation some years since with several Michigan farmers as to the average yield of wheat per acre in that State, we found that their estimates of an average crop for all the acres sown to wheat in that State varied from eight to fifteen bushels. A correspondent of the *Prairie Farmer*, writing at Dongola, in the southern part of Illinois, after asserting that "we raise as good wheat as anywhere grows on the globe," makes the following statement:

The wheat crop is about an average this year; that is, 7½ bushels to the acre. Many places will not exceed three bushels to the acre. Thousands of farmers never get more. What can be expected of wheat slobbered on grass amidst standing corn? When it is put on good clover ground we have wheat, say from 18 to 25, and even 30 bushels to the acre. It is a pity we do not raise more wheat, when the quality is so superior to that raised in the north part of the State.

## LETTER FROM THE FARM.

*Concord, August* 8, 1863.

**Bright Sun Again—Haying—Music in the Morning—Flooded Meadows—Loss in Grass and Cranberries—Man's Inhumanity—An Old Hassock Meadow—Result of Drainage—Visitors.**

Farmers are again refreshing in a bright sun and an elastic west wind. The cheerful morning music is that of the mower whetting his scythe, while the evening is made glad with the noisy "clack" of the mowing machine, prostrating the now ripened grass, until the darkness of evening shuts in the scene. All is bustle and activity. There are no laggards in the field now. August is wearing in upon us, and the upland hay harvest is not yet secured.

In this region, thousands of tons of hay will be ruined by the late rains. Up and down this rich and beautiful valley, for a distance of *twenty-five* miles, the river suddenly rose and spread over the broad meadows and immersed the standing grass. After remaining several days in its midst it is now slowly receding, leaving a blackened mass of decaying vegetable matter, which is sending its pestilential odors into every dwelling in the neighborhood. The grass presents a slippery and repulsive appearance, and seems to have lost all its nutritive properties. This destruction is not only on the immediate banks of the river, but the water is backed up every little brook and pushed in upon the land, thus destroying a large amount of crops that are somewhat remote from the main channel of the river. One farmer, who winters from fifty to seventy-five head of cattle, stated to me, that although in the midst of his haying, nearly all the grass he had then to cut *was under water!* Another said he had what would have made *thirty tons* of hay, *all under water!* There are hundreds of similar cases, so that the loss occasioned by the water this year, in grass and cranberries, in this valley, will not fall short of $100,000!

This immense loss to one of the most industrious and hard-working classes of our people, does not flow from the operation of the natural laws which govern the elements about us,—but from a sordid spirit of gain, which disregards the rights and prosperity of others, and wrests from them the possession of the fair lands which a bountiful Creator had furnished them from which to draw their support.

If the water could flow freely through its Heaven-appointed channels, instead of a curse to the land, as it now is, it would fertilize and make glad its banks, so that a happy and prosperous people would till the land in joy, instead of being drawn from their homes with heavy and sorrowing hearts. But this is not the case. The water is impeded in its course, that a few thousands more may go into the hands of the manufacturer, the lands become a prey to the floods, and the people to disappointment and poverty! How true it is, that,

> "Man's inhumanity to man,
> Makes countless thousands mourn."

### An Old Hassock Meadow.

I have been mowing a meadow where a wonderful change has been effected by drainage. As I drove through it, sitting on the machine and cutting my first swath, I observed that herd's grass *stood nearly to the top of the horses' backs.* I collected and measured some of it, and found it *four feet and nine inches high.* This was brought in by *drainage alone*, not a particle of manure being used, nor a *seed sown!* The cold water underneath was merely led away, and this was the result!

I cannot certainly decide, but the strong probability is, that this meadow, or "run," had been annually mowed for a hundred years, without being ploughed. On reference to my *Farm Journal*, I find the following record:—"*Monday, August* 5, 1851. Mr. B. came to plough with two pairs of oxen and a horse, which, with my own horse, made a very strong team; but the roots and hassocks were so tough that we found it impossible to turn the furrows with the plough. I then procured one with a double share which cut entirely under the furrow, but it would not then remain turned over, and we were obliged to stop after ploughing two or three rods and turn it over by hand. Occasionally, we were obliged to cut off the furrow with an ax, and then turn it over! Ploughed about half an acre to-day." The previous day we ploughed only *one quarter of an acre* in the entire day, with a team of five cattle.

This meadow was drained with *stone* drains, and after being levelled was dressed with a little compost and seeded. In 1852, it yielded about a ton to the acre. In 1853, the first crop was estimated by good judges to be *three* tons per acre. It was cut twice afterwards, and probably produced between four and five tons per acre that year. After six or seven years the *stone* drains became obstructed—principally through the working of field mice, and the meadow went gradually back to water plants,—coarse grasses, skunk cabbage, &c., and hassocks formed and annually gained in height. At the end of *eleven* years the herbage on it was very much as it was before I ploughed it.

Last October, 1862, this meadow was thoroughly drained with tiles or pipes. No *ploughing* was done, no *seeding* and no *manuring*, and the result, in a single season, is as I have stated,—herds-grass four feet nine inches, and standing thick and heavy! Water grasses disappearing, and the meadow allowing a horse and machine upon it, where both would have floundered in black muck before! This is not an isolated case, but one of a numerous class occurring all about me. I have

preserved samples of the herds grass, and also of the meadow grass which were growing side by side. If a little compost were spread, and some red top and herds grass added this month, I think two tons per acre of the best of hay might be made next season.

Such is the result of simply *drawing away the surplus water*. I will not disguise the fact, that the cost will be considerable, perhaps $50 per acre, in the way I manage it. My drains, however, are only twenty feet apart, and are four feet deep. There is no doubt on my mind, that, on lands which lie near the buildings, and which produce water grasses, it will be a matter of economy to drain, in most cases. Let us see:

The crop on this land for many years has been one ton per acre, and worth $10,00.

Under the treatment I have suggested above, it will certainly be increased to two tons, each worth $16.00, making, per acre, $32.00. Leaving a gain of $22.00. It will not take long, therefore, to get back in an increased crop all the cost of draining, and then, as the work is permanent, the per centage of profit will be very large for a lifetime.

I am happy to say, gentlemen, that my invitation to our friends to visit the farm has been kindly received by some, and that this piece of drainage has been several times critically examined with approbation. I shall be glad to see others who are progressive farmers, and spend as much time with them as they may consider profitable.

I am truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

## GREAT INTERNATIONAL WHEAT SHOW.

A great International Wheat Show will be held at Rochester, N. Y., Sept. 8th, 9th, and 10th, under the auspices of the Monroe County Agricultural Society. The following premiums are offered:

| | |
|---|---|
| For the best 20 bushels of white winter wheat | $150 00 |
| For the second best " " " | 75 00 |
| For the best 20 bushels red winter wheat | 100 00 |
| For the second best " " " | 50 00 |
| For the best 2 bushels white winter wheat | 50 00 |
| For the second best " " " | 25 00 |
| For the best 2 bushels red winter wheat | 40 00 |
| For the second best " " " | 20 00 |
| For the best 2 bushels spring wheat | 20 00 |
| For the second best " " " | 10 00 |

Competitors for these prizes will be required to furnish samples of the wheat in the ear and with the straw attached, (say 50 ears of wheat and straw,) also to furnish a written statement of the nature of the soil on which the wheat grew, method of cultivation, time of sowing, quantity of seed sown, manures (if any used,) and mode and time of application; also the time of ripening and harvesting, and the yield per acre, with such other particulars as may be deemed of practical importance; also the name by which the variety is known in the locality where it was grown.

The wheat must be one variety, pure and unmixed. The prize to be awarded to the actual grower of the wheat, and the wheat which takes a prize is to become the property of the Society. It is hoped that farmers in all sections of the United States and Canada, who have good samples of wheat, will compete for these prizes. We have never yet had a good wheat show in the United States. It is highly important that the wheat-growers of the country should meet together and compare samples of wheat raised in different sections. Full particulars can be obtained by addressing the President of the Society, JOSEPH HARRIS, Editor *Genesee Farmer*, Rochester, N. Y.

## TOP-DRESSING GRASS LANDS.

As the haying progresses, let the subject of top-dressing be kept in mind. Grass lands that begin to fail and yet have a plenty of grass may be made almost as good as new by the application of compost. It will wake into newness of life the old roots, and cause new ones to form. It will wake up the slumbering energies of the soil. It is like oats to the old work horse. It gives him vigor. He must have them or falter in the harness. The soil must be fed, or it makes but a feeble effort to respond to the demands of the farmer. Top-dress those fields that just begin to fail. It will save ploughing them so soon. Ploughing is expensive. It takes muscle, both of man and beast. It should be avoided, when another system pays better. The shortest route to a destined place is preferable, other things being equal. The shortest cut to a good grass crop is to feed it well all the time. This being *the* crop for New England, above all others, should be the first. Being the first born of the family, it is entitled to extra care and attention. It being the corner stone of the whole fabric, it should be prized accordingly, and be kept continually in remembrance, and *never* suffered to become a matter of secondary consideration. This is the case with many persons at the present time. The corn and the potatoes must have the lion's share of the manure. The grass must take what is left, and a scanty pittance it often is. Now then what shall be done?

Let every farmer begin in the spring to save. His first care should be for the summer droppings of his cattle. If they are not stabled they should be put in a good yard, or into the barn-cellar—the latter is the better place, if it can be well ventilated—with a good supply of loam or muck under them. Once every week the whole should be ploughed over. No better plan can possibly be devised for the manufacture of compost, than a barn cellar, with doors and windows so arranged that a good draught of air may pass through at all times. It is very comfortable for cattle, and a large amount of saltpetre will be deposited, rendering the manure much more valuable than it would be if out of doors. By frequent ploughing, or by the service of hogs' noses, the mass will be well mixed, and the manure completely divided, which is of much importance.

Before the fall rains, this compost should be evenly spread upon the surface. The better way is to spread it from the cart. Some apply a brush harrow and brush it in.—B. *in Journal of Agriculture.*

EVEN those who smoke and drink at the expense of others do so still more at their own.

*For the New England Farmer.*

## PULVERIZED BONE.

DEAR SIR:—I notice a communication in your paper from Mr. George Haskell to the Editors of the *Country Gentleman*, in which he recommends a mixture of ground bone, "the finer the better," with "good friable soil," fermented together for a time, say forty-eight hours, as the best preparation of the phosphate of lime to be applied to soils. The gist of Mr. Haskell's communication is, that finely ground bone is better than any of the artificial phosphates, so called, prepared with vitriol or otherwise.

If the opinion of Mr. Haskell were to prevail among the farmers of New England, the demand for finely pulverized bone, and in fact for bone in every shape would far exceed the natural supply. We should then become importers of bone, instead of being, as we now are, exporters of this precious commodity, to our great loss and injury. We should be competitors for bone in the markets of the world with France and England, who are impoverishing the farmers of the United States, not only by the purchase of grain, but by exhausting the means which we have of restoring worn out soils. A people who sell their phosphates for gold, are selling the marrow, pith and substance of the land, which no money can replace.

That we are so far behind the French and English in our knowledge of agricultural economy, is sufficiently humiliating, but it is not too late to mend the error and correct it in future. We have what the French and English people have not. We have machinery by which bone can be reduced, rapidly and economically, to an impalpable dust, or flour. You say very truly, sir, in your remarks upon Mr. Haskell's plan, that the difficult part of the matter is, how to grind the bone.

I quote further from your commentary: "There are few things of this nature so difficult to accomplish as this. Granite, blue pebble stones from the beach, nay, ten-penny nails, are not half so hard to reduce to powder as a bone. We have never yet known a mill that will grind a bone in its crude condition. Even the manufacturers of superphosphate are obliged to expel all the animal or fatty matter from the bones before they can grind them. Then the bones are ground and the matter that was expelled is returned to them in a liquid form.

Every farmer will be obliged to Mr. Haskell for making known his process of reducing bones, but will look to him with interest for information how to break or grind them so that fermentation in them may be secured. We can purchase what is called "ground bone," but which is, in fact broken bone. That, however, is not what is wanted."

Messrs. Henry A. Breed & Co., who have advertised their unadulterated flour of bone in your paper, have expended a respectable capital and more than a year of time in attaining a complete solution of the difficulty of which you speak. Their success has been complete, and the singular value of the results which they have attained, will be attested by a large circle of intelligent agriculturists who have been experimenting with their flour of bone, in the vicinity of Boston during the past season. W.

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SOME men are born to own, and can animate all their possessions.

# LADIES' DEPARTMENT.

## SUMMER.

Long grass swaying in the playing
Of the almost wearied breeze;
Flowers bowed beneath a crowd
Of the yellow armor'd bees;
Sumptuous forests filled with twilight,
Like a dreamy old romance,
Rivers falling, rivers calling,
In their indolent advance;

Crimson heath-bells making regal
All the solitary places;
Dominant light, that pierces down
Into the deep blue water spaces;
Sun-uprisings, and sun settings,
And intensities of noon;
Purple darkness of the midnight,
And the glory of the moon.

Rapid, rosy-tinted lightnings,
Where the rocky clouds are riven,
Like the lifting of a vail
Before the inner courts of heaven;
Silver stars in azure evenings,
Slowly climbing up the steep;
Cornfields ripening to the harvest,
And the wide seas smooth with sleep.

## DOMESTIC RECEIPTS.

BROILED TOMATOES.—In order to have tomatoes nice, cooked in this manner, the largest ones must be selected. Cut them into rather thick slices, seasoning each piece with pepper and salt. Use an oyster gridiron to broil them on—a common one will answer—and cook them but a few moments. When sent to the table, add butter.

TOMATO PUDDING.—Slice the tomatoes, place a layer of them in the bottom of an earthern dish, cover with bread crumbs, profusely seasoned; add another layer of tomatoes and cover with bread crumbs as before, and, when the dish is filled, place on the top a piece of butter. Put the dish into a moderate oven, and if two layers of tomatoes fill it, twenty minutes will be long enough for them to be sufficiently cooked.

PRESERVING TOMATOES.—Much cooking of this fruit destroys not only its flavor, but leaves a pulpaceous mass, hardly recognizable by its taste or appearance. As my wife has a more excellent way—so we think—I will describe it. Put the tomatoes nto a large dish; then pour on boiling water so that the rind or peel can be more readily taken off; after which, squeeze a good part of the juice out of the tomato while it is in the hand; then cut into two to four pieces according to size. Cook for a few minutes until well heated through; bottle, using no corks, thick drilling only, cemented on the under side, put on the mouth of the bottle and pressed down and tied. Then with a spoon dip on the wax (resin with a little lard,) until the top is covered; when cool, set in cellar and exclude the light. Prepared in this way, you will get the real, genuine flavor of the tomatoes when cooked, nearly equal to those just picked from the vines.—*L. G., in American Rgriculturist.*

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☞ Dr. Bellows stated in his speech before the American Unitarian Association, that in the midst of the unprecedented excitement of the last two years, the amount of insanity in the country has materially decreased from what it was in time of peace. The substitution of a noble and healthy excitement for ignoble and degrading agitations of mind thus shows itself by the most delicate of tests.

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HOW PLANTS ABSORB MOISTURE.—Professor Johnson, of Yale College, says that it is the remarkable result of late exact investigations that land plants cannot directly absorb vapor of water by their foliage or roots, nor can they absorb by their foliage or by their roots flowing water; but acquire the moisture they need by the action of their roots on the invisible water which adheres to the surfaces of the particles of the soil.

HOW TO SELECT FLOUR.—First look at the color; if it is white, with a slightly yellowish, or straw-colored tint, buy it. If it is very white, with a bluish cast, or with white specks in it, refuse it.

Second—Examine its adhesiveness; wet and knead a little of it between your fingers; if it works soft and sticky, it is poor.

Third—Throw a little lump of dry flour against a dry, smooth, perpendicular surface; if it falls like powder, it is bad.

Fourth—Squeeze some of the flour in your hand; if it retains the shape given by the pressure, that, too, is a good sign. Flour that will stand all these tests, it is safe to buy. These modes are given by old flour-dealers, and they pertain to a matter that concerns everybody, namely, the staff of life.

A GOOD HINT.—Send your little child to bed happy. Whatever cares press, give it a warm good-night kiss as it goes to its pillow. The memory of this, in the stormy years which fate may have in store for the little one, will be like Bethlehem's star to the bewildered shepherds.

## CATTLE MARKETS FOR AUGUST.

The following is a summary of the reports for the four weeks ending August 12, 1863:

NUMBER AT MARKET.

| | *Cattle.* | *Sheep.* | *Shotes.* | *Fat Hogs.* | *Veals.* |
|---|---|---|---|---|---|
| July 22.....1235 | 6700 | 400 | 1200 | 400 |
| July 29.....1836 | 6925 | 200 | 1000 | 300 |
| Aug. 5.....2212 | 5031 | 225 | 300 | 200 |
| " 12.....1850 | 7727 | 225 | 1900 | 200 |
| Total.....7133 | 26,383 | 1050 | 4400 | 1100 |

The following table exhibits the number of cattle and sheep from each State for the last four weeks, and for the corresponding four weeks last year; also the total number since the first of January, of each year:

| | THIS YEAR. | | LAST YEAR. | |
|---|---|---|---|---|
| | *Cattle.* | *Sheep.* | *Cattle.* | *Sheep.* |
| Maine.....560 | 4924 | 129 | 6524 |
| New Hampshire.....700 | 2220 | 245 | 2128 |
| Vermont.....1468 | 11,086 | 2237 | 10,773 |
| Massachusetts.....74 | 662 | 41 | 937 |
| Northern New York.....291 | 2520 | 255 | 1655 |
| Canada.....185 | 3306 | 174 | 2734 |
| Western States.....3765 | 1665 | 4110 | 1316 |
| Total, last four weeks.....7,133 | 26,383 | 7,191 | 25,067 |
| Total, since Jan. 1,(33 w'ks,) 46,009 | 103,859 | 43,884 | 109,926 |

PRICES.

| | *July* 22. | *July* 29. | *Aug.* 5. | *Aug.* 12. |
|---|---|---|---|---|
| Beef, 1st, 2d, 3d qual..5½@8½ | 5½@8½ | 5½@8½ | 5½@8½ |
| " a few extra.....9 @9½ | 9 @9½ | 8½@ | 8½@9 |
| Sheep & lambs, each.$2½@5 | $2½@5 | $2½@4½ | $2½@4½ |
| Swine, stores, w'sale...5 @6 | 5 @6 | 5½@6½ | 5½@6 |
| " " retail..6 @8 | 5 @7 | 6½@7½ | 6 @7 |
| Hides, ℔ lb..... ...7½@8½ | 7½@8½ | 7½@8½ | 7½@8½ |
| Pelts, sheep & lambs.40 @$1 | 37 @$1 | 37 @$1 | 37 @$1 |
| Tallow, ℔ lb.....8 @8½ | 7½@8 | 7½@8 | 7 @8 |

REMARKS.—During the past four weeks the trade of the Boston live stock market has been very good, and prices quite uniform, with the exception of a decline of about ½c ℔ lb. on beef. According to figures the number of cattle at market thus far this year (33 weeks,) is 2185 more than was reported last year, while that of sheep is 1067 less this year than last. It will also be noticed that the number of sheep and lambs from Maine, during the past four weeks is 1600 less than for the corresponding four weeks last year. Many sheep and lambs are slaughtered in the seaport towns of Maine, and the mutton sent to commission houses in this city, by whom it is retailed. Probably the decrease in the number of live lambs at market from Maine this year, is fully supplied by the increase of the amount of dead mutton.

### Sales of Cattle and Sheep.

The following is from our report of sales, Aug 15:

I. A. Blake sold 4 oxen, laid to dress 900 lbs. each, at 7½c ℔ lb.; 3 three-year-old steers for 7c, and 3 others for 6½c; 2 two-year-old heifers for 6c, and 3 steers for 6½c ℔ lb.

E. R. Deming sold 1 pair of good oxen, 1800 to 1900 lbs., at 8c, dressed weight, and 7 four-year old steers for $40 each, or about 6¾c ℔ lb. O. E. Taylor 7 oxen, 925 lbs. each, dressed, for 7½c.

E. Woodruff sold 9 four-year-olds, at from 7 to 8c ℔ lb; 3 two-year-olds for $25 each, or 6c ℔ lb.; 4 cows for $190, or 7c ℔ lb., and 4 three-year-olds, laid to dress 2600 lbs. for $40 each.

Geo. W. Morrison sold 4 oxen, laid to dress 3400 lbs., for $262; 6 three-year-old steers, 700 lbs., dressed, for $44 each; 2 good two-year-olds at 5¾c ℔ lb.

A. N. Monroe sold 24 Western steers, gross live weight 32,645 lbs., for 8¾c, 30 sk; 22 weighing 27,530 lbs., for 8½c, 32 sk; 14 weighing 21,080 lbs., for 8¼c, 35 sk; 4 steers, live weight 3870 lbs., at 7c, 35 sk; 10 others, 11,090 lbs., at 7c, 40 sk; 34 weighing 43,660 lbs., at 8¼c, ½ sk; 4, of 5170 lbs., at 8½c, 30 sk; 6 others, 6,860 lbs., at 8½c, 31 sk; 4 weighing 5220 lbs., at 8½c, ½ sk; 3, of 3,210 lbs., at 8¼c, ½ sk; and 24 weighing together 27,475 lbs., for 8c, ½ sk.

G. W. Baker sold 25 lambs and 20 yearlings at $3,50 ℔ head. Lambert Hastings sold one lot of 68, of which 54 were lambs and 14 old ones, for $2,75 each, and from that up to $4, at which price he sold a few of his best. N. G. Batchelder sold 220 for $3,75 each, 273 to Jerry Pratt, for about $4, bargain not definitely closed, and 84 others on same conditions. D. Rice sold 108 New York lambs at $3, J. E. Parker sold 59 Maine lambs at $3 each, and Gen. J. Morse sold 100 Canada sheep and lambs to same purchaser, for $4 ℔ head. W. H. Curtis sold a small lot of lambs at $2,85 ℔ head. The Western sheep are mostly bought on commission. One lot of corn-fed sheep, over 100 lbs., at Albany, we were told cost about 5½c ℔ lb.